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MEDICAL REFORM:

A TREATISE

ON

MAN'S PHYSICAL BEING AND DISORDERS,

EMBRACING AN

OUTLINE OF A THEORY OF HUMAN LIFE,

AND A

THEORY OF DISEASE—ITS NATURE, CAUSE, AND REMEDY.

"Truth is mighty, and will prevail."

BY ISAAC JENNINGS, M. D.

OBERLIN:
FITCH & JENNINGS.

1847.

Entered, according to Act of Congress, in the year 1847,
BY ISAAC JENNINGS, M. D.,
In the Clerk's Office of the District Court of the United States for the District of Ohio.

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PRINTED BY JAMES M. FITCH.

ADVERTISEMENT.

It was not the author's intention to have this work present itself to the public with credentials on its brow, but to leave it to recommend itself by internal evidence, together with the testimonials that are embodied in section sixth, entitled "Facts and Testimonials." But as a number of friends of Medical Reform who have looked over the Manuscripts and proof sheets of the work, have been kind enough to furnish very favorable notices of it, it has been concluded to insert a couple of them next to the title page, under a belief that some might be thereby induced to read the book that otherwise would not feel disposed to, and that others might be prompted to read it more attentively and profitably.

NOTICES OF THE WORK.

BY DR. ALCOTT.

TO THOSE WHOM IT MAY CONCERN:—

This is to certify that I have read, with some care, and great interest, a work in manuscript, by Isaac Jennings, M. D., which aims to show, and, as I think, succeeds in proving, that Human Disease, or, as Dr. J. calls it, Impaired Health, is not, as has been generally believed, *wrong action;* but, on the contrary, is *right* action; or in other words, the best which Nature can do under the circumstances. And I most fully and firmly believe that the dissemination of his views—admitting his liability to some degree of imperfection—would do more, at the present crisis, to meliorate the condition of mankind, physically and morally, than the promulgation of any thing else, short of the everlasting gospel itself.

WM. A. ALCOTT.

West Newton, Mass., Aug. 15, 1846.

—

BY PROF. FINNEY.

DR. JENNINGS:—

I am rejoiced that you are about to give to the world your views of medical reform. The multitudinous conflicting theories and practices of the medical profession, for ages past, and at present, demonstrate that no certainty is yet attained in the department of medicine. But if medicine be properly a *science* at all, it must belong to the certain or exact sciences. Whatever occurs under the operation of physical law must occur of necessity; and of course, if the law can be discovered, a science can be reared upon its developements. It certainly is an abuse of terms to call the "Theory and Practice of Medicine" a *science* in its present state. The whole subject of medicine needs to be overhauled and must be; for in these days of breaking loose from authority and of applying the severest tests of truth to every subject of human inquiry, it must be that minds will be found that will disturb "the foundations of many generations" upon the important subject of medicine. I have long been distressed with the unintelligent and unintelligible jargon of medical practice. Having suffered much from impaired health and medical treatment, and having

conversed with numerous eminent physicians, I was struck with the fact that "clouds and darkness" rested upon their pathway; that they were agonized (I mean the conscientious among them) with uncertainty at every step—hating empyrics, and yet obliged to be nothing else themselves. I said to myself the whole subject of medicine must need thorough revision if not utter subversion.

I was in this state of mind when your views were first communicated to me. I was prepared to look at them candidly, and was so much better satisfied with them than with any thing else I had examined, that, in respect to *myself*, I have practiced upon them exclusively for more than ten years, and my family have also done the same almost without exception, with the most satisfactory results.

I have read the proof sheets you handed me, and am much pleased with your manner of presenting your views to the world. I think with you, that, as far as Homœopathy has claims upon public confidence, it is altogether confirmatory of your views. I have had opportunity to examine Mr. Hahnemann's views, and was struck with the fact that his system of medical treatment was based upon the assumption that disease is *not wrong* but *right action*, that nature was doing its best, and that medicine should be given to *help forward the existing action or to increase the existing symptoms instead of changing them.* He found also that the *less he helped nature the better;* that is, that as soon as medicine had *sensibly increased the existing symptoms*, he must cease to give medicine. This has occasioned their infinitesimal doses. Now who cannot see that this whole system of medical treatment is based upon the same assumption that you make, to wit, that all action is *right under the circumstances*, that is, that it is the *best that under the circumstances can be done.* The error of Hahnemann and his followers lies in the assumption that with medicine they can *help nature*, or in other words, that medicine can supply the place of vitality. But I regard this error as comparatively harmless, because they give so little medicine as to make almost no impression any way. They are generally good nurses and give wholesome directions in regard to diet, habits, &c., and use the least possible quantity of medicine. This I have thought was probably better for mankind, in their present ignorance of the necessary precautions in regard to nursing and habits, than for them at once, in their ignorance, to adopt the *no treatment system.* The Homœopath does but little *injury* with his *medicine*, while he does much for the patient by advice in regard to nursing.

I hope the medical faculty will look thoroughly and honestly into your views. I have often asked myself, is it possible that God has left us *necessarily* all in the dark upon the greatly important subject of disease? Has He neither given us any *rational ground* upon which to construct a *science* of disease and cure, nor any revelation whatever? The fact is, there *must* be some *a priori* ground upon which the science of disease and cure can be based. This ground must and will be discovered. I am anxious to see if your "theory," as you modestly call it, can not be so stated as that the human intelligence shall intuitively affirm that it *must be true.* The more I look at your fundamental principle, namely, that *disease is in no case wrong action or a positive entity*, but in all cases is only *impaired action resulting from a deficiency of*

vitality, and yet the best that is possible under the circumstances, I say the more I look at this principle and turn it over, subjecting it to the inspection of my intelligence, the more I find myself verging to the conclusion that this *must* be true. If there be any action in an organized and living body it must be organic action. It must tend to health. Organic law can act but in one direction, and that is to sustain the organization. When vitality or the vital principle is abundant, the organism will be perfectly sustained in all its functions. When the vital principle is deficient in quantity, the action will be defective—the functions of the organism will be partially suspended for want of power—but still the action is *organic action*. It can not be wrong action; for all the action there is, is the result of vitality yet energizing in the system. I have much that I should like to say upon this subject, but must close with hoping and praying that your work may be generally read by all classes and especially by the medical profession; for surely, if it be true, it is the greatest of mere human discoveries.

Yours truly,

C. G. FINNEY.

Oberlin, Jan. 5th, 1847.

PREFACE.

An apology is due to my distant friends, at whose suggestion and solicitation I venture to appear before the public in print, for the tardiness of this appearance.

Difficulties neither few nor small, which in the providence of God I have been called to encounter for a few years past, are my excuse. I advert to the occasion of delay to avoid the imputation of moral delinquency,—of a want of proper respect for, and attention to the wishes of my friends, to a seasonable compliance with which they were justly entitled, by the many substantial tokens of affectionate regard which I have experienced at their hands. *I have done the best I could.* The "*beginning* of sorrows" was laid in tearing up old foundations, breaking away from long established and competent business pursuits, congenial associations and tried friendships,—cemented in the bonds of mutual confidence and affection,—and exchanging the exhilarating and tonic climate of New-England, for the fenny atmosphere of the West;—sunderings and changes made, too, under the weight and inelasticity of declining years. But of subsequent

adverse and uncongenial influences that brooded over my cogitations, and rested like an incubus on my pen, I will not trouble the reader with a particular detail. Suffice it to say that what I have written has been done at short irregular periods, with intervals of days, weeks and months; and when I have been at the writing desk, I have been so much under the depressing influence of perplexing cares, oppressive labors, and other embarrassing and discouraging circumstances, that no inconsiderable portion of those brief periods was necessarily consumed in rallying the enfeebled, scattered energies, and getting into operation the reluctant mental machinery.

I committed an error, under existing circumstances, in attempting too much. I projected a plan of a work to be entitled, "A Treatise on the Perfectibility of Man as a Moral, Intellectual and Physical Being"—in which it was my design to show in what human perfection consisted; trace some of the steps by which it has been lost; notice some of the particulars in which every son and daughter of Adam is now at a great remove from perfection, and point out some of the ways and means which must and will be taken and used to restore man again from the ruins of the fall: ways and means which are indicated by the openings of science, and the leadings of providence. Especially was it my design to dwell at some length on the

importance of attending to "the house I live in," if it were only for the sake of the mind which inhabits and uses it. Although the mind, abstractly considered, is a spiritual essence, and as such has its own laws and modes of action, yet while in the earthly tabernacle, its manifestation and intercourse with other minds, depend on the character and condition of the apparatus which it uses for those purposes, which is as purely physical as any other tissue or portion of the body, and as liable to be injured and to get out of tune, or unfit for use.

It is a familiar fact, recognizable by the most superficial observer, that the strength and sanity of the mind are easily and often impaired by changes that occur in the brain during sickness of various kinds and degrees, and by injuries inflicted on that organ by external violence;—and it would not be difficult to show from facts which fall within common observation, that modifications and affections of the brain and nervous system, have very much to do with making man the petulant, perverse and unstable creature that he now is. Indeed there is good reason to believe that much of the mental imbecility, diversity, contrariety and insanity; the impatient fretful disposition,—"inordinate affection and evil concupiscence," and moral obliquity of men, have their strong hold in *physical* depravity.

In proof of this position, and for illustration, take an example of the effects of alcoholic liquor on the human system. How common has been the spectacle of a noble intellect, with a good share of moral virtues, prostrated under the influence of strong drink. And how chamelion like do men appear under different phases of alcoholic influence? At one time, facetious and verbose in the extreme, thoughts and words flow apace, exceedingly good natured, complacent and obliging; at another time, taciturn, morose and vicious: at one time,—violent, furious and destructive; at another,—imbecile, mild and inoffensive. Now alcohol does not produce these effects by acting directly upon the mind, but by impairing the mental apparatus, and that portion of the nervous tissue which is the seat and source of the affections, temper and disposition. Drunkenness is therefore a *physical* vice; that is, a lesion of the physical system is the occasion of the phenomena belonging to it, or which constitute it.

Not that I would absolve the mind from guilt in the matter; for intemperance is clearly a crime, such a crime as will shut the kingdom of heaven against the soul that goes to the bar of God with its unwashed stain upon it. And crime is not chargeable upon matter, dead or living. But though this injured state of the physical organism is not itself criminal, yet no one

can doubt but that it strongly conduces to moral guilt. With how much force it draws the unfortunate subject of it into the commission of crime, against the dictates of reason, the warnings of conscience, and oft repeated solemn resolutions,

"None but he who feels it knows."

Before the heaven inspired and faith inspiring temperance reformation dawned upon the unfortunate and deluded victims of intemperance it was exceedingly rare for any of them to break their bands asunder, and plant themselves firmly and enduringly upon the table land of sobriety, morality and religion,—however they might seek to do so, "carefully with tears."

But there are multitudes of other causes of physical deterioration besides alcohol,—and no matter in what way, or by what means the activity of the human system is impaired, the defection will influence sooner or later, and to a greater or less extent the operations of the mind, and the feelings, and passions of the man. Any one who will be at the pains-taking to watch his own states of mind and feeling at different times, will readily discover that these vary with the rise and fall of bodily health and vigor—on the full tide of the latter, memory, imagination and every faculty of the mind, and good natured feelings, with power to resist temptation to evil, are

at their zenith; and vice versa, according to the nature and office of the parts whose activity is impaired, and in proportion to the declension of that activity.

Many of the causes of impaired bodily vigor, and which when pointed out are acknowledged to be such, are nevertheless regarded as "little things," unworthy of grave attention. Now it is not, by a coarse, single strand cable that the god of this world leads his subjects "captive at his will",—but by thousands of little silken threads, woven into a firm invincible texture, with which he binds his victims head, hand and foot, that he controls them at his pleasure. Through grace, these threads are to be singly sought out and sundered, and man once more put in possession of himself,—the *animal* brought under the dominion of, and made subservient to, the *man*; the appetites and passions put under the most perfect and easy control of reason, and all subject to the high behests of heaven. Vain will it be to attempt the universal and permanent elevation of man in one department of his nature, to a point that deserves the name of perfection, without securing in him a corresponding development of every other department.

It was from considerations and convictions like the foregoing, in view of the evidence which every where met me of the strong upward tendency of our whole being, as divinely constituted and provided for, that I felt inclined, when urged to give publicity to my views on the subject of disease; to lay the ax at the root of the tree,—to endeavor to present such an array of motives in favor of universal reformation, as would be likely to arrest the attention of the reader, bring him to inquire in what respects he was violating the laws of his being, and set himself in earnest to mend his ways. Had my original design been carried into execution, it would have embraced the substance of the following pages with other correlative matter,—and I had hoped to throw what I had to offer on the general subject into a compass not much larger than the present volume: for it has been from the first my settled, unaltered purpose not to make a large book. But before the work, as at first entered upon, was near completion, the manuscripts had accumulated beyond my intention or expectation, and the difficulties under which I was laboring had thickened upon me to an extent that precluded entirely the idea of revising, condensing and completing the work according to my first design. Indeed circumstances imperiously demanded

that the undivided labor of my head and hands should be applied in another direction, so that I was reduced to the necessity of either abandoning the thought of publishing any thing or of preparing for the press a smaller treatise, embracing but a part of the topics contemplated in the original plan. The latter alternative was chosen,—and in a hurried and interrupted manner, the following imperfect little work has been cut and drawn out. Yet, crude and imperfect as the work is, it is offered to the public with the desire and hope that it may do something towards elevating man from the depths of degradation, to which "transgression of law" has reduced him. There is manifestly a great and growing dissatisfaction with the present state of things, and a panting after higher attainments in every thing that relates to the welfare of the human family, and great and constantly increasing efforts are being made for the amelioration of their condition.

How the medical faculty, with a full understanding of my views of the vital operations of the human system, will regard them, is yet problematical. As a body, I have great confidence in their ability and probity to judge in the premises, and whatever may be their convictions on the "first blush," on a "sober second thought" they will do me justice. I am aware

how some of my medical brethren, who have a partial knowledge* of my views, regard them. While they give me credit for honesty of purpose, they ascribe my professional aberrations to monomania.

One of this number, for whom I entertain a very high esteem both for his public worth and a long and undiminished personal friendship, after communicating to me the opinion here referred to, in a very kind and tender manner, and with that characteristic candor and frankness which, with other excellent qualities, secures to him the confidence, affection and patronage of the community in which he lives, said, "You know,

---

* "Partial knowledge." I am now strongly inclined to believe that none of my medical brethren have had a clear and correct notion of my views of disease. I had had considerable correspondence with Dr. Alcott on the subject, and supposed that he understood me;—yet, in a letter to me acknowledging the receipt of my manuscript of the present work, and stating that he had read it, the Dr. says—"Unless I am greatly mistaken, I can now truly say that I understand you. For one great difficulty with me all along, in regard to your theory, has been that I did not fully understand you in all your statements and views. At length, however, my eyes are opened; and the more I read and reflect the more I admire. * * * Yes, my dear sir, I feel assured, most fully assured that you are, in the main, (perhaps wholly,) right. And with the deep conviction that you have made a great and greatly important discovery, I will frankly say that there is no book which I more anxiously wish to see before the public. It will work a revolution greater than any which has been set on foot in eighteen hundred years."

How the reading of the work will affect other members of the profession remains yet to be learned.

Doctor, that there is such a thing as partial derangement; that a man may become wild on one subject, while he is sound on most others." Yes, I understand that very well; and if Dr. Johnson is to be credited, who supposed that there was "*no* human mind in its right state," it would not be strange if, in this revolutionary or transition, and, in many respects, wild, fanatical age, the author's mind had somewhat lost its balance; nay, if this were true to the full extent of the fears or belief of my brethren, there would not be enough of the marvelous about it to constitute the eighth wonder of the world. And on a careful inspection of the operations of my mind, I can discover one strong symptom of derangement. Crazy folks are very apt to suspect others of derangement who differ from them in opinion.

There is unsoundness somewhere. On the subject of disease my brethren are deranged or I am. "There are no two ways about it." And it may be of some consequence to the public to ascertain where the insanity lies, especially if it affects the mass of Doctors; though if it is confined to one humble individual, it is, to be sure, of but small moment. But of this the reader must be "judge and jury."

Before making out his verdict, however, let me beg of him to understand distinctly the point at issue. It is not whether a set of men should be educated exclusively for attendance upon the sick; nor whether medicine may not in some rare cases be used advantageously as an absorbant, corrector or antidote; nor yet even whether, in some sudden emergency, violent means, internal and external, may not be used to change natural action—to compel, for the time being, some or all of the organs to move faster than, or differently from what they would do if left to themselves. These points are all freely and fully conceded. The question is, what, in a *general* sense, is the nature of that condition of the human system, so far as present action is concerned, which is considered and called a diseased state? Is it, under the accompanying circumstances, right or wrong? And if it continue for an indefinite period without abatement, and especially if it become aggravated or progress with increasing symptoms of deviation from the natural healthy state, under the most favorable circumstances for improvement, such as the position of the body, covering, temperature of the air, state of the mind and regimen—in the absence of all new or present disturbing causes—is it a right condition,

right action, of salutary tendency—working out good—and therefore to be left to effect its own cure, without opposition or molestation, under proper regulations, or what may be called good nursing,—or is it a wrong condition—wrong action—of destructive tendency—working mischief—and consequently to be broken up or changed by the use of appropriate compulsory means?

This is *the* question, and to the settling of this question the reader is particularly requested to direct his attention in examining the evidence adduced in the following pages in the support of the affirmative of the question, designed to show that the condition spoken of is a right condition so far as the operations of nature are concerned—a condition into which the vital economy has been forced by the operation of causes beyond her control; that it is a choice of evils; the best that can be done under the circumstances:—in short, that, in a general sense, all unimpeded or undisturbed vital action, is, and by a law of necessity *must* be, *right action.*

If the view which is here taken of disease be substantially correct—if the main question be settled in the affirmative—then a new and broad foundation will be laid for the erection of a system of medical,

or rather anti-medical practice, in which men may be taught and trained up to "see eye to eye," to the total discomfiture of ignorant, audacious empiricism, and the settled, confiding trust of the community,—and, what is more important, it will lead to a careful and thorough study of prophylactics, to the eventual supplanting of therapeutics. But if the question be settled in the negative, against the right action theory, then are we still afloat on the broad ocean of uncertainty; and the question—what is disease?—yet remains an unsolved problem.

Perhaps some of my readers may think that I have been too prolix in my exposition and illustration of the main point at issue—have expressed the same thoughts too frequently, or in a needless variety of forms. I was strongly admonished against deficiency in this particular by a friend on whose judgment I place great reliance, on the ground of universal prejudice against the views herein maintained; and because the subject had been so long familiar to my mind in the light here presented, that it would lead me to believe a less amount of evidence was necessary to convince others of the truth of my position, (admitting it to be true,) than facts would warrant. One thing at least is clear

—that the main position which I hold with regard to disease is either true or false; that what is called diseased action, in a large, general sense, must be either right or wrong action—demanded under the circumstances, or not demanded: and I hold that such action is right in an almost universal sense, to which exceptions are few, and occur but seldom; examples of which will be noticed hereafter.

But it is not so clear that all the minor positions, and the whole of the philosophy by which I have attempted to sustain the main position, are thus characterized. Some of them may be of a doubtful or mixed character. The world has been so long enveloped in gross darkness on this subject, and the wrecks and fragments of demolished systems of medicine were scattered in such wild and oppressive profusion on my right hand and on my left—and withal there is yet so little known of the functional arrangement and office work of the brain and nervous system, that it would be passing strange if I have not committed some errors in accounting for the complicated operations of the vital economy in health and in disease. I must therefore again ask the candid reader to keep the *main question* steadily before his mind, and decide,

in view of all the evidence before him, whether the conclusion of the whole matter to which I have arrived is not legitimately and satisfactorily deduced—whether the theory of right action, in its principle features, is not more consonant with the laws and analogies of nature than the theory of wrong action—and whether facts, when well sifted and correctly weighed, do not give the former the most decided support.

THE AUTHOR.

Oberlin, Januqry 1st, 1847.

CONTENTS.

PAGE.

INTRODUCTION, ... 25—41

SECTION I.

A General Outline, or Skeleton View of a Theory of Human Life. Ten Inferences. General Conclusion, ... 42—47

SECTION II.

Analysis of the Law of the Animal Economy or Law of Life. 1st. Law of Action. 2d. Law of Repose. 3d. Special Law of Economy. 4th. Law of Distribution. 5th. Law of Accommodation. 6th. Law of Stimulation. 7th. Law of Limitation. 8th. Law of Equilibrium, ... 48—75

SECTION III.

Theory of Disease—General and Special—with examples in Illustration. General notion. Dr. Smith's View. Bichat's, &c., Definition of Disease. What Disease is not. What Disease is. Seat of Disease. Principles on which Disease is conducted. Generic Proximate Occasion of Disease. Specific do. 1st, 2d, and 3d Divisions of the Proximate Causes of Diseased Action. Specific Proximate Occasions of Disease—Examples. 76—91

SECTION III—Continued.

Second Division of Specific Occasions—Examples. Critical Periods. 2d, 3d, and 4th Varieties of the 2d Species of Occasional Causes of Disease. Third Species of Proximate Occasions of Disease—Examples 1st, 2d, 3d. Hereditary Diseases, ... 92—126

SECTION IV.

Analysis of Prominent Phenomena of Disease. Analysis of Disease. 1st, 2d, 3d, 4th, 5th, 6th, 7th, 8th, 9th, and 10th Symptoms, ... 127—166

SECTION V.

Examination of prominent causes of disease. Alcohol—Tea and Coffee—Tobacco—Animal food, Butter and Cheese —Tight-Lacing,—Defective Education,—Ungoverned passions &c. Contagions, ... 167—211

SECTION VI.

Facts from experience and observation with reflections and remarks—Testimony from others. ..... 212—248

SECTION VII.

Medical Delusion—Examples—Orthodoxy—Vitalists—Heterodoxy—Thompsonian—Quacks. ..... 249—278

SECTION VIII.

Objections answered. ..... 279—305

SECTION IX.

Directions for management of disease—Preliminary measures, Examine the subject and medicine chest—Idea of disease—Four kinds of Action—Examples—Case of Spinster and woman that would not live an hour—Management of disease—Stop waste and disturbance—Other items—Exercise—Diet—Graham—Milk—Water—Bath, Specifications—Croup—Feeble parts—Burns and scalds, Chilblains—Corsets,—Exceptions—Excitants—Worms, —Poisons. . . . . 306—375

MEDICAL REFORM.

INTRODUCTION.

In entering upon an inquiry into the physiological condition of man, we may confidently admit the position that "God made man upright;" that He constituted just and symmetrical proportions between the moral, mental, and physical powers, and between the different organs of the physical system; that He adapted these to each other, and the whole to the purpose for which they were designed; and based the whole man upon certain fixed principles or laws by which he was to govern himself and be governed;—the observance of which was essential to, and would most certainly secure a perfect development of all his faculties and powers, and procure for him the highest degree of health and happiness of which he might be susceptible.

What point of elevation man would have reached by an entire conformity to all the laws of his being, we have now no means of judging. In all probability, the act of transgression that "brought death into the world, and all our wo," was perpetrated before the maturity of at least man's *intellectual* powers. Be this as it may, however, of one thing we are certain, that disobedience to the laws of life has reduced man from a condition but "little lower than the angels," to one comparatively wretched and miserable,—one in which he is subject to pains and aches of body and mind, in form, variety, and degree, beyond description.

Is this condition of our being fixed "firm in *fate*," beyond the possibility of material improvement by any thing that man can do; aided or unaided? Such seems hitherto to have been the general impression. The common prejudice has been, that, somehow or other, the fall of man reversed, in many respects at least, the order of nature. That instead of every thing conspiring to promote human health and happiness, there was a general conspiracy for the destruction of both. Hence such sentiments as the following:

> "Soon as we draw our infant breath,
> The seeds of sin grow up for death."

There is, it is thought, a poison in every thing, in the bread we eat, in the water we drink, and in the air we breathe.

> "Each pleasure has its poison too,
> And every sweet a snare."

The wise and benevolent Author of our being has been regarded as aiding, directly and extensively, in this work of destruction. Long has the church sung,

> "Diseases are thy servants, Lord,
> They go and come at thy command."

And ministers of the gospel, in their addresses to the throne of grace on funeral occasions, have been in the practice of telling the Almighty Ruler of the universe, in plain, unequivocal language, that He has, by his holy and wise, though *mysterious* providence, destroyed the work of his own hands.*

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* It is indeed true, in one very important sense, that "God turns man to destruction, and says Return, ye children of men." In another sense it is equally true that man is his own destroyer. "O Israel! thou hast destroyed thyself."

> "We give ourselves the wounds we feel;
> We drink the poisonous gall;
> And rush with fury down to death."

To this latter view of the subject the attention of the reader is requested.

Happily for posterity, if I rightly interpret Scripture prophecies, and the developments of Providence, a brighter day is at hand. A spirit of free inquiry is abroad in the earth that will not brook restraint, until error has fallen in the streets, and truth universally prevails. Every theory and practice, no matter how matured by age, modeled by experience, or hallowed by pious usage, must pass under review, and be subjected to emendation, till it bear the broad and palpable impress of truth and righteousness.

Such is the conviction under which I proceed with the investigation before me; and, confident that it can be for no man's interest to be wrong himself, or lead others astray, I shall endeavor, with the utmost candor and faithfulness, to point out what I belive to be error, and advance what I apprehend to be truth,—with the cherished desire and expectation that what may be deemed error in *me* will be exposed with the same frankness and candor by others.

In a very limited work, such as this is designed to be, it will be impossible to go minutely into human physiology. And yet I hope to be able to present so much of the general principles, laws, and operations of the animal economy, in man, as shall lead to a clear exposition of my views of what is called disease,—its nature, causes, and the best method of treatment.

But as in the exact sciences, nothing is admitted to be true until its opposite is shown to be untrue, so in the present instance, I will attempt, in the first place, to show what is *not* true in the premises; and secondly, what *is* true; not, indeed, with the precision and force of mathematical demonstration, but of strong probability.

First. It is not true that human nature is not recoverable from its present degeneracy, "though e'er so great," even to the last degree of its original destination, except in the item of mortality.

Ample provision has been made for man's total renovation; and when the Sun of Righteousness shall beam forth a little brighter with healing in his wings, and dispel the dense cloud of metaphysical mysticism in which the church and the world have been long enveloped, and when men shall come to understand a few plain, simple, common sense principles, fundamental to human well being, more than half of the work will be accomplished. Man's physical system possesses within itself the machinery requisite for its own renovation; and when it shall be properly taken care of, fed with food convenient for it, and all its laws obeyed, the regenerating work will go steadily forward to its consummation.

SECONDLY. It is not true, in a general sense, that the human system, when disturbed and deranged in its natural operations, becomes suicidal in its action. This is invading what may be considered more particularly the province of the physician, and denying one of his fundamental positions—a position on which the whole fabric of medical science and medical practice rests. Deference to the profession, and the importance of the subject, involving health and life itself, demand that the ground on which we are now treading, should be examined with much caution.

Since disorders of the human system were first studied methodically, a great variety of theories have been entertained with regard to their nature, all, however, embodying one element as a common basis, or fundamental principle, viz, a present positive wrong, —or some *thing*, *quality*, *condition*, or *action*, that, under existing circumstances, without new cause or provocation, threatens the destruction of life—that tends to the pulling down rather than the building up of the system. For example, if a man sitting quietly in his chair, or reposing calmly on his couch, should be suddenly and violently affected with pain or spasm; or have a chill pass over him, followed with a general

feverish affection, or a determination to a particular part, forming what may be called inflammation of the head, brain, eyes, or chest, or dysentery, bilious colic, pleurisy or apoplexy; or let there be any considerable derangement of the system, general or local, that is progressing in an increased ratio, either gradually or rapidly,—whether it come on suddenly and with well defined symptoms, or almost imperceptibly,—such condition or state would be considered by all classes of physicians, regular or irregular, a wrong one, wrong in itself, and of mischievous or destructive tendency. Against this, or any other view of disease that includes the idea of suicidal action, or such use or perversion of natural action as tends to undermine health and life, (with very few exceptions, to be noticed in the proper place,) I protest, and say it is not true.

Reason First. Such a view presents an anomaly in the universe of God's physical government. It is not in accordance with the known operations and manifestations of other natural laws.

Reason Second. That the doctrine of a present positive wrong is an error, may be inferred, if not proved, from the fact that physicians have not been able, with all their indefatigable labors, to show in what the wrong consists. No set of men have labored more industriously and perseveringly, to perfect any science or art, than physicians have to perfect theirs. The object or burden of their inquiry has been to ascertain and define the proximate cause of disease—that on which the symptoms were immediately based, or the simple reason why the deranged action or state existed. And the inquiry has been prosecuted on the assumption that the cause of the difficulty, whatever or wherever it might be, was a present acting, disturbing, or impeding cause, that must be changed, destroyed or removed, before healthy action could be restored. And, without stopping to inquire whether

this foundation on which they were building was true or false, many splendid edifices have been erected, only to slide away like the "baseless fabric of a vision," leaving scarcely a wreck behind.

For a long period the Humoral Pathology prevailed; a doctrine that makes the fluids amenable for all physical disturbances. A great variety of beautiful theories were built upon this sandy foundation. Among them Boerhaave's doctrine of Error Loci (wrong place) stood conspicuous. This taught that globules of fluid destined to circulate in a set of vessels adapted to their size, had strayed into vessels of smaller calibre, become choked, and thus produced disturbance, local and general. Some made the disturbance arise from an undue thickening or thinning of the fluids; others found, as they believed, the cause of the disturbance in a chemical change of the fluids—they were too acid or too alkaline, &c., &c.

After the general doctrine of Humoral Pathology had prevailed some two or three centuries, the idea was conceived that a bad state of the fluids could only result from a bad state of the fluid-makers. Attention was then turned to the *living solid*, as the seat and source of disease; and in the latter part of the last century, Dr. Cullen succeeded in exploding all the theories of disease that were based upon the Humoral Pathology, and founded, what was then considered, a very ingenious one of his own, on the general principle of *wrong action* in the living fibre;—making the remedy to consist in what he conceived to be appropriate means for correcting the wrong action.

It was not long, however, before serious defects were discovered in this system. In giving his views of the proximate cause of fever, Dr. Cullen says: "I suppose that in every fever there is a power applied to the body, which has a tendency to hurt and destroy it, and produces in it certain motions which deviate

from the natural state; and at the same time, I suppose, in consequence of the constitution of the animal economy, there are certain motions excited, which have a tendency to obviate the effects of the noxious power, or to correct and remove them. Both these kinds of motion are considered as constituting the disease. But the former is perhaps strictly the morbid state, while the latter is to be considered as the operation of the vis medicatrix naturæ, of salutary tendency, and which I shall hereafter call the reaction of the system."

Agreeably to this view of the subject, there are two kinds of action in the system at the same time, or alternating each other in very rapid succession—one that "deviates from the natural state," is produced by "a power applied to the body, which has a tendency to hurt and destroy it;" the other of "salutary tendency," "excited," called up and sustained, "in consequence of the constitution of the animal economy;" that is, man is so made, (a very convenient, short-hand way of getting over a difficulty,) that when there is occasion for it, this friendly action will spring up. Can any thing more absurd than this be easily conceived? Two kinds of action, one trying to kill, the other to save, in possession of the same parts at the same time! And yet, of all the absurd theories that have had their day, this is the least absurd.

The many and weighty objections that were found to lie against Cullen's views of disease, operated variously upon the mass of medical mind. A portion, though small of leading medical men, fell back upon the old ground of Humoral Pathology, which had been for a season in the sole and quiet possession of such men as Morris, Swaim, Brandreth, & Co. Much the largest part, however, held on to Cullen; and by cutting out, patching, mending, and variously modifying his system, continued it as a text book. A few master spirits moved forward in the upward path of

investigation; and narrowly watching the operations of nature, saw evident and indubitable marks of design and consistency in all her works; and in the exercise of a little common sense, concluded that when the blood was out of order, they must go to the blood-makers to ascertain the cause. When they came to these and found them impaired, still reasoning from effect to cause, they were induced to look for difficulty in the moving, controlling power of the blood-makers,—the vital energy,—and to settle down on the belief, and publicly teach, that an *altered state* of the *vital forces* coustituted the grand difficulty—the long looked for proximate cause.

These medical philosophers were termed *vitalists*. At their head was the lamented Bichat, a Frenchman, who terminated a brilliant career on earth at the early age of thirty-one.

There were now three grand classes of medical theorists, the Humorists, Solidists, and Vitalists; besides subdivisions, whose creeds were formed from two or all of the general theories.

Among all the teachers and practitioners of medicine, including "Regulars" and "Irregulars," there are two points of agreement, and but two.

First; that disease, in some *manner* or *shape*, is an enemy. Secondly; that war must be made upon the enemy. But in what this enemy consists, where it has its seat, how, at what time, with what weapons, and with the application of how much force it is to be attacked, they are as wide apart, in their opinions and practice, as the poles; and as mutable as the seasons.

That this is not an exaggerated picture, will appear from the confessions of some of the most eminent members of the medical profession.

Dr. Rush remarked in a public lecture; "I am here incessantly led to make an apology for the instability of the theories and practice of physic; and those phy-

sicians generally become the most eminent, who have the soonest emancipated themselves from the tyranny of the schools of physic. Dissections daily convince us of our ignorance of disease, and cause us to blush at our prescriptions. What mischief have we done, under the belief of false facts and false theories! We have assisted in multiplying diseases; we have done more, we have increased their mortality. I will not pause to beg pardon of the faculty, for acknowledging, in this public manner, the weakness of our profession. I am pursuing truth, and am indifferent whither I am led, if she only is my leader."

On another occasion he said; "the art of healing is like an unroofed temple, uncovered at the top and cracked at the foundation."

The following is from Bichat, the great French physician and philosopher, already named. "To what errors have not mankind been led in the employment and denomination of medicines! They created *deobstruents*, when the theory of *obstruction* was in fashion; and *incisives* when that of the *thickening* of the humors prevailed. The expressions *diluents* and *attenuants* were common *before* this period. When it was necessary to *blunt* the *acrid* particles, they created *inviscants*, *incrassants*, &c. Those who saw in diseases only a *relaxation* or *tension* of the fibres, as they called it, employed *astringents* and *relaxants*. *Refrigerants* and *heating* remedies were brought into use by those who had a special regard, in disease, to an excess or deficiency of caloric. The same *identical* remedies have been employed under *different names*, according to the *manner* in which they were supposed to act; *deobstruent* in one case, *relaxant* in another, *refrigerant* in another, the *same* medicine has been employed with all these opposite views."

Again. "Hence the *vagueness* and *uncertainty* our science presents at this day. An *incoherent* assemblage of *incoherent* opinions, it is, perhaps, of all the

physiological sciences, that which best shows the caprice of the human mind. What do I say? It is not a science for a *methodical* mind. It is a shapeless assemblage of inaccurate ideas; of observations often puerile; of deceptive remedies; and of formulæ as *fantastically* conceived, as they are tediously arranged."

Acknowledgment of Magendie, a French physician and physiologist.—"I hesitate not to declare, no matter how sorely I shall wound our vanity, that so gross is our ignorance of the real nature of the physiological disorders called diseases, that it would perhaps be better to do nothing and resign the complaint we are called upon to treat, to the resources of nature, than to act, as we are frequently compelled to do, without knowing the why and the wherefore of our conduct, and at the obvious risk of hastening the end of the patient."

Dr. Good.—"The science of medicine is a barbarous jargon; and the effects of our medicine on the human system are in the highest degree uncertain, except, indeed, that they have already destroyed more lives than war, pestilence and famine combined."

Dr. Benjamin Waterhouse, after lecturing more than twenty years in the medical department of Harvard University, retired, saying, "I am sick of learned quackery."

A medical friend has just put into my hand a Memoir of James Jackson, Jun., M. D., son of the distinguished Dr. Jackson of Boston.

This lamented young man, after graduating at Cambridge University, and devoting two years to the study of Medicine and attendence upon public medical lectures in this country, under the direction of his father, spent between two and three years in Europe, with a view to the sccessful practice of the "Healing Art" in his native city.

After much careful observation and reflection, he says in a letter to his father:—

* * * "But our poor pathology and yet worse therapeutics; shall we ever get to a solid bottom? shall we ever have fixed laws? shall we ever *know*, or must we be ever doomed to suspect, to presume? Is *perhaps* to be our qualifying word forever and for aye? Must we forever be obliged to hang our heads when the chemist and natural philosopher ask us for our laws and principles? Must we ever blush to see the book of the naturalist, his orders and his genera, with their *characteristics invariable*, while we can point to nothing equivalent? Our study is that of nature, as well as theirs; the same cause acting upon the same materials must ever produce the same effect with us, as with them. But they know *all their elements*. Do we? In their calculation no figure need be left out. Is it so with us? If honest, must we not confess that we are ignorant of many circumstances, which must, however, vary the result? If honest, must we not acknowledge that, even in the natural history of disease, there is much very *doubtful*, which is received as sure? And in therapeutics, is it better yet, or worse?

Have we judged, have we deduced our results, especially in this last science, from *all*, or from a *selection* of facts? Do we *know*, for example, in how many cases such a treatment fails for the one time it succeeds? Do we know how large a proportion of cases would get well without any treatment, compared with those which recover under it? Do not imagine, my dear father, that I am becoming a sceptic in medicine; it is not quite so bad as that;—I shall ever believe, *at least*, that the rules of hygeia must be and are useful, and that he only can well understand and value them, who has well studied pathology. Indeed, I may add that, to a certain extent, I have seen demonstrated the actual benefit of certain modes of treatment in acute diseases. But is this benefit immense? When life is threatened, do we very often save it?

When a disease is destined by *nature* to be long, do we often very materially diminish it?"

Much to the same purpose might be added from distinguished men out of the profession. Thomas Jefferson, in a letter to Dr. Wistar, wrote—"I have lived to see the disciples of Hoffman, Boerhaave, Stahl, Cullen and Brown succeed one another, like the shifting figures of the magic lantern; and their fancies, like the dresses of the annual doll babies from Paris, becoming, from their novelty, the vogue of the day, and yielding to the next novelty their ephemeral favors. The patient, treated on the fashionable theory, sometimes recovers in spite of their medicine. The medicine therefore restores him, and the doctor receives new courage to proceed in his experiments on the lives of his fellow creatures."

Sir Walter Scott observes of Napoleon; "He never obeyed the medical injunctions of his physician, Dr. O. Meara; and obstinately refused to take medicine. 'Doctor,' said he, 'no physicing. We are a machine made to live. We are organized for that purpose; such is our nature. *Do not counteract the living principle.* Let it alone; leave it the liberty of defending itself; it will do better than your drugs. The watchmaker cannot open it, and must, on handling it, grope his way blindfold and at random. For once that he assists and relieves it by dint of tormenting it with crooked instruments, he injures it ten times, and at last destroys it.'"*

These sayings of Napoleon are worthy of much consideration. They are replete with sound philosophy and important instruction; and evince a mind accustomed to close and accurate thinking and careful observation. DO NOT COUNTERACT THE LIVING PRINCIPLE. *Remember that.*

Additional negative testimony to the theory of a

* Scott's Life of Napoleon, three vols. in one, p. 363.

present positive wrong in disease, may be drawn from the little or imperceptible difference in the results of directly opposite and widely different modes of treatment. Let a comparison be made between two different methods of treating disease in the city of Boston.

In the Boston Medical and Surgical Journal, a few years since, there was an obituary notice of Dr. Danforth, who had long been an eminent practitioner in Boston, in which it is said that he seldom used active medicine, and more rarely caused a patient to be bled. With regard to the latter remedy the notice states;—"Though considered one of the most successful practitioners, he rarely caused a patient to be bled. Probably for the last twenty years of his practice, he did not propose the use of this remedy in a single instance. And he maintained that the abstraction of the vital fluid, diminished the power of overcoming the disease. On one occasion, he was called to visit a number of persons who had been injured by the fall of a house frame, and on arriving found another practitioner engaged in bleeding the men. 'Doctor,' said the latter, 'I am doing your work for you.' 'Then,' said Dr. Danforth, 'pour the blood back into the veins of those men.'"

Contrast this practice with that of Dr. Watson, who is now and has been for a number of years, in the estimation of his friends at least, "one of the most successful practitioners." In a public discussion held in Boston, between Dr. Watson and a Thompsonian physician, the former made the open and unqualified declaration, that in the course of four years' practice in Boston and its vicinity, he had drawn one hundred gallons of human blood, and was then on his thirty-ninth pound of calomel!

Both these men, be it remembered, had full practice. One did little or nothing to *break up* disease, or destroy the enemy, the other a great deal; and yet

both were successful. How can this be accounted for on any other supposition than that there was no enemy to be destroyed? That nature had an important object to accomplish by those operations which were supposed to be working ill, and in her own way moved forward, in most cases, to a happy issue, notwithstanding the dread array and opposition of

"Lancet, powder, pill and bolus."

Another source of discredit to the prevailing views of disease, is found in the transfer of confidence in the regularly educated physician to the ignorant quack. Do discerning men leave the thorough-bred and skillful watch-maker, and take their time-pieces to the blacksmith, the ship-carpenter or farmer, for repair? Why, then, do so many turn aside from the learned and experienced physician, and entrust those living chronometers of theirs, a thousand times more complicated and important than their best patent levers, or gold repeaters, to the remedial care of men who know little more of their structure or laws of action than infants know of algebra?

In addition to the multitude of ignorant quacks that are fattening upon the public credulity, or its incredulity of the medical art, millions of dollars are expended annually, in the United States alone, for base compounds mixed up by vile pretenders to the art of healing, and greedily swallowed by all classes of persons—the learned and the wise, as well as the ignorant and the foolish. Very few families can be found that have not more or less of these pernicious drugs in their houses. Does not this simple fact argue, most conclusively, a very serious if not radical defect in the healing art?

Much other *negative* testimony might be adduced in support of the position that the present prevailing views of disease are erroneous. But I shall rely mainly on *positive* testimony, drawn from a considera-

tion of the nature, laws and operations of human life, and facts, to show that there can be no such *thing* as disease, any more than there is such a *thing* as cold or darkness; and that what is called disease is simply the negation of health,—a tired and injured state of the organs affected—a faltering of the powers of life.

But before entering upon this part of the work, let me assure my medical brethren that I am not waging war against the profession.* I have borne too large a part in its labors, anxieties and responsibilities, and shared too largely in the confidence and kindness of my brethren, hastily to abandon the former, or lightly to esteem the latter. However defective I may consider the science and art of medicine, I feel no disposition to consign them over, for improvement and use, to stupid empiricism or base imposture. I have no sympathy with the sentiment that ascribes important discoveries or improvements in medicine to ignorance, charm, or juggling. If what is called the "healing art," is ever improved, it must be by a careful and diligent study of the laws of our being; by a thorough acquaintance with the fundamental principle of vital action—its capability and tendency; the organs which it moves; their structural arrangement, and their healthy motions; the manner in which they operate to produce the disturbances, and the true nature and tendency of the deranged or disturbed action. Or, more briefly, we must know what constitutes healthy action, by what means it is best promoted and main-

* I trust that my brethren, however they may pity my weakness, will not all regard and *treat* me as a moral renegade. Dr. S. said to Dr. D. in my hearing, and doubtless for my special benefit—"Jennings has no right, now, to claim fellowship with the regular profession." And by way of illustration, and perhaps to show his abhorrence of my awful apostacy, added interrogatively—"Do you think that Satan was ever admitted to a seat or fellowship with the *holy* angels after his fall?"—Whew!

tained, how it becomes deranged or impaired, and in what respects the deranged differs from the regular or usual action, before we can discover the best means of restoring health when it has been impaired.

It is generally admitted that we are yet far from having a perfect system of medicine; and though past failures should serve to moderate expectation, and chasten confidence in our own labors, they should by no means deter us from attempting improvements.

It has long been a maxim in medicine, that desperate cases require, or at least justify desperate remedies. It may be necessary to drive the plough-share of reform under the very foundation of the fabric, which our illustrious predecessor, Dr. Rush, pronounced "uncovered at the top and cracked at the foundation." And since no satisfactory theory of disease has yet been established on the assumption that it is in itself a disturbing and deranging quality or power either in its elements or movements, will not the faculty carefully and impartially examine a theory of disease founded on an opposite assumption? If this should prove to be the true theory, though it will demolish *medical* establishments, dispense with pill-making, and most of the drudgery as well as the druggery of the practice, it will leave enough for physicians to do, for years to come, in superintending severe cases of illness, ascertaining the causes of physical derangements, and showing the good people, by precept and example, how to avoid them; and at the same time and in the same way discover the best means of promoting perfect and permanent health. Their pretensions to skill in the management of disease will be more humble, but being more just, and better understood and appreciated, will secure more entire confidence in their patrons, and better support from them; and above all, give a death blow to *quackery*.

I will now endeavor to show that the prevalent

theories of disease are unsound; and to establish a new one on a better and more rational basis, by a consideration, at some length, of the laws and operations of life, and by the presentation of facts.

SECTION I.

A GENERAL OUTLINE, OR SKELETON VIEW OF A THEORY OF HUMAN LIFE.

HUMAN Life consists in or results from the union of a principle, denominated the vital or living principle, with matter curiously and wonderfully wrought into a system of organs, originally, by the fiat of the Almighty, and continued and propagated by a self-preserving and self-perpetuating faculty. Of the particular nature or essence of this vital principle—how it is produced, how it is applied, or how it operates in exciting motion—we know nothing. We can only judge of it from its operation and effects, its sensible manifestations. From what we now know of these, we are warranted in drawing the following conclusions:

I. This principle, and this alone, produces, sustains and controls all vital action in man, whether perfect or imperfect. No other principle, power or force can supply its place, and perform living action in its stead. When this is present, there is life; when it is exhausted, death ensues.

II. Life results as naturally from the presence of the vital principle as water runs down hill, and the former is no more a forced state than the latter. Nor can the inorganic affinities, such as fermentation, decomposition or putrifaction play upon matter charged with the vital principle, any more than they can act on burnished gold.

III. In whatever way the vital energy is furnished, whether it be dispensed from an unreplenishable fund, deposited at the commencement of life in a given amount in some portion of the brain—or transmitted directly from Deity—or in whatever way, or

from whatever source it is furnished, it becomes available by the receiving and distributing organs, in a regular income, at a greater or less rate, and at all times and under all circumstances, till the supply ceases.

IV. It was evidently the design of the Creator of man's physical system, that there should be at all times a large stock of vital energy in store, over and above the income, or what was required for ordinary current expenditure, ready for any emergency, that a sudden and extraordinary draught upon it might not produce bankruptcy.

V. The production or income of the vital principle can, by no human possibility, be increased—its expenditure, general and local, may be accelerated.

VI. The vital energy can never be in excess, and yet the best economy of life demands that it should be used freely when the supply in store will admit of it, especially in childhood and youth. It requires less power to sustain the different functions of life when the organs are well developed and in a sound condition, than when they are not; it is good economy, therefore, to expend power enough on the muscles of voluntary motion to give extension and tone to the whole system.

VII. The seat or depository of this power is in the brain, and, most probably, each tissue of working agents or acting organs, by and through which power is expended, has a separate depository of power for the supply of its own wants, which may be called individual depositories.

At the head of the great sympathetic nerve is a large depository of power destined to act as a reserve supply or balancing power, to afford succor to any feeble oppressed organ that may need special relief; and particularly to guard and sustain those organs that are more immediately essential to life. This may be called the general or common depository. The ganglions or little brains, formed by the convolu-

tions of nerves, and found in every part of the body, in the immediate vicinity of every organ, proportioned in size to the size and importance of the organ, also serve as sub-reservoirs or special depositories of power, to act on the spur of occasion, and furnish aid to their respective wards, in periods of sudden danger, before help could reach them from head quarters. The vital current is, moreover, not subject to a retrograde motion; but when the power leaves its depository it keeps its own proper channel till it reaches its place of destination, and is then used. And, lastly, the vital energy is not transferable or interchangable by or between the individual organs or their depositories; on the contrary, the only source of aid to feeble organs, beyond their own fountains of strength, is in the common depository of power.

VIII. By virtue of a law to be noticed presently, and more fully elucidated in the sequel, the vital energy is transmitted from the repositories to the several parts of the organism through the medium of the nerves, as circumstances require, or according to the necessities of the system and the ability to supply. The power may be withheld from some parts and appropriated to others, or held in check for replenishment, and thus become latent, leaving the parts from which it has been withheld, for the time being, unable to act.

IX. When the vital energy abounds in ample quantity, in a well developed and sound state of the organism, the depositories all full and overflowing, and there is nothing to prevent a free distribution of the energy or impede the action of organs, every part of the system will be supplied with power to its utmost necessity, and every function will be performed with promptness, ease and vigor. If blood be drawn from the body under these circumstances, it will exhibit a lively, florid, healthy appearance, and long resist the action of the law of decomposition. Wounds and bruises

also heal readily, and physical good feeling, animation and universal symptoms of health and strength prevail. But when there is a great deficiency of this power, it will be indicated by symptoms or appearances opposite to those just enumerated, modified by circumstances. Yet the power still remaining, be it more or less, will be appropriated according to the necessities of the whole system, regard being had, first, to its present safety; and, when this is secured, to its future welfare and the prolongation of life.

X. This vital principle, which generates the living fibre, and produces and controls its action, is itself under law—a law which is as fixed and uniform in its operations as the law of light or heat, or the law of gravitation, or any physical law. The tendency of all its motions is in one direction, towards the point of perfect health, and that too with all its force.

Finally, from the foregoing may be deduced the following

GENERAL CONCLUSION.

When there is a perfect organization and structure, a full supply of vital power, and nothing to impede or disturb its operations, there will be perfect health. When the organic structure is defective, the vital energy deficient, or an impeding or disturbing cause present, health will be defective or impaired. The kind and degree of impaired action will depend on the nature of the part affected, the nature and extent of the defect, the degree of deficiency of vital power, and the amount of force exerted by the impeding or disturbing causes.

The process by which recovery is to be effected when there is structural derangement or defect, may be called a repairing process. When there is simply a deficiency of power, it may be called a recruiting process. Both of these are the work of nature—a vital work. Art may serve as a hand maid to nature in

this work by removing causes, when they are present, and can be removed at a less expense of vital energy and less injury to organs by art than they can be by nature—by furnishing nature with a suitable material for carrying on her work—and, in general providing that the entire condition of the body and mind be made and kept favorable to the restorative process. But the repairing and recruiting are nature's own work, in which art can have no share.

To develop more fully and clearly the fundamental principle and the propositions involved in the above general conclusion and premises, I will,

First: Give an analysis of the Law of the Animal Economy, and show some of its operations in *health* and in *impaired* health.

Secondly: Give a theory of disease; offer my views of its nature and tendency; show in what it consists, and why it prevails, and adduce familiar examples in illustration.

Thirdly: Analyze some of the more prominent phenomena of disease.

Fourthly: Examine some of the prominent causes of disease.

Fifthly: Adduce facts from my own experience and observation, and offer testimony from others.

Sixthly: Point out the principle sources of our delusion on the subject of disease, and show how they have operated to deceive us.

Seventhly: Consider a few of the objections that have been offered to my views of disease.

Eighthly: Give some general directions for the management of disease.

SECTION II.

ANALYSIS OF THE LAW OF THE ANIMAL ECONOMY, OR LAW OF LIFE.

THE general law of the human economy is a unit. In all its operations, as a general rule, whether the result be perfect or impaired health, its *tendency* is one and indivisible: *the highest and best interest of the whole system.* Nor can this unity be broken while life continues.

But, for the purpose, however, of showing more clearly its nature, tendency, and adaptation to the purposes of life and health, I will examine it under a number of divisions.

The FIRST division may be denominated the LAW OF ACTION.

By virtue of this law, the body is built up and sustained. Each individual organ has its own appropriate work to do; and it can do no other work. The bile system must secrete bile;—*good* bile—when it has the power to do so; and when unable to produce a perfect article, it must do the best it can. It is so constituted—such is the law of its being—that while it has power to act at all, it must act in a given direction. The same is true of all the other parts of the system. When food is received into the stomach, the digestive and alimentary apparatus is put in operation, and the nutriment is converted into chyle. This is taken up by the lacteals, carried into the blood, distributed by the arteries to every part of the body, and converted by the secretory organs into bone, muscles, and new and innumerable other parts, solid and fluid;—worn out and useless particles, wherever found, are taken up by the absorbents, and carried into the general mass of circulating fluid;—this is

cleansed by the kidneys, liver, and other depurating organs;—heat is manufactured and regulated by vessels adapted to that purpose;—the muscles of voluntary motion are obedient to the will;—and all the functions of the body are performed with as much promptness, regularity, and efficiency, as, under existing circumstances, is compatible with the safety and welfare of the system. I repeat—in the whole process of nutrition, or the conversion of the raw material into an almost infinite variety of living matter; in *all* the operations of life, throughout the whole extent of the diversified and complicated vital organism—including the action of the voluntary muscles, carrying out the volitions of the mind—"in sickness and in health," every organ and every fibre of the body, is at its post, ready and disposed to discharge its particular function, to the full extent of its ability.

Let it not be understood from the assertion, "each individual organ has its appropriate work to do, and can do no other work," that none of these organs can, under any circumstances, perform any other offices than those to which they are accustomed, or for which they are more particularly designed, for some of them do occasionally perform what are called *vicarious* offices. When an important depurating or cleansing process is suspended, from disability of the natural apparatus, or that which was particularly designed for that purpose, other organs will be called upon to eliminate from the system those deleterious substances, which, if suffered to remain, would destroy life or injure health; and those organs that are best adapted to the work, and can at the time be most conveniently spared for it, will do it. For example, if the kidneys are unable, for any considerable period, to perform their office, the fluids of the body become charged with offensive and highly exciting matter, which would soon injure the health, and destroy life, if they were not by some means eliminated from the mass of fluids, and ejected from the body.

A very remarkable case of totally suppressed secretion by the kidneys, was reported some fifteen or twenty years ago, with ample vouchers, in the Boston Medical and Surgical Journal. Loss of appetite and general febrile symptoms, emaciation and agonizing distress, were consequent upon the suppression. Active means were used in vain for the restoration of the customary secretions. After the lapse of a number of days, relief was obtained by the free, spontaneous discharge of a fluid, from one ear, in all respects resembling kidney secretion. The discharge continued periodically from this ear, for a few days, and stopped. After this, relief was afforded in a similar manner, and for about the same length of time, by the other ear; then by the nose, breast, and so on, till nature had completed the repairs of the kidneys, and re-established their office.

In default of bile by the liver, this fluid may be produced by other vessels not accustomed to the work.

A patient of mine, Miss M. D., of Derby, Conn., after being moderately ill for about two weeks, with fever of the remittent form, was affected, in the morning, with a yellowness of the eyes, face and neck, and a little way down the arms and breast, which was here circumscribed with a well defined boundary line or margin. In the afternoon the yellowness wholly disappeared, with a gentle rise of fever. This yellowness continued to return every morning, and disappear in the afternoon, for a week, and then was seen no more. In consequence of a failure in the bile system, to free the blood of the rudimentary principles of bile, these, in their circulation through the system, were goading and wounding the capillaries, or fine net work of blood vessels on the surface of the body; and those on the upper portion of it being in a condition to be more affected by them than others, (and it is not uncommon for the cuticular vessels of the upper

part of the body to be in a different condition from those on the other parts of the body, as is evinced by partial moisture,) were under the necessity of assuming, for the time, the office of the liver, for their own relief.

In these and similar cases, an imperious necessity is created for vicarious action, and the parts that engage in it, do so on the principle of self-preservation, and manifest thereby, a previous adaptation to the work. This kind of action, therefore, can in no sense, be considered *fortuitous* or *wrong* action, but becomes, under the circumstances, the appropriate duty of the organs that perform it. This, too, instead of militating against the theory of unity of action, at least so far as design and end are concerned, furnishes a very strong argument in its favor, and serves to demonstrate more clearly the infinite wisdom of the Contriver and Maker of the human body; and should lead us to exercise great caution in all our attempts to repair a machine so curiously and wonderfully made, lest by counteracting the living principle, "we be found fighting against God."

The SECOND Division of the LAW of the Animal Economy, may be called the LAW OF REPOSE.

Action wastes or expends power. Rest is, therefore, necessary for its replenishment. The intervals and periods of healthy repose are proportioned to the nature and amount of the action performed by particular organs. The heart, and arteries, and respiratory organs are limited by the nature of their work to short intervals and periods of rest. The muscles of voluntary motion, and the mental organs, may be continued in exercise a longer or shorter period, at the pleasure of the Will, and require rest accordingly.

The THIRD Division is the SPECIAL LAW OF ECONOMY.

Its office is to husband and garner up the vital energy. As all vital action depends on this energy,

and will be vigorous and pleasant in proportion to the amount of energy expended upon it, other things being equal, it is of great importance that the Special Law of Economy should be favored in its operations. Some seasons of the year and kinds of weather are more favorable for the vital operations than others, less power being required for the performance of the several functions of the body; and if the special economy is favored, it will take advantage of the favorable seasons, and lay by in store the excess of funds above the current expenditures, "against a time of need," that there may be more to use, when more is required.

From lack of knowledge of this wise and merciful provision, or disregard to it, most persons are exceedingly improvident of life, or that which sustains it. When they feel *well*—that is, free from actual pain, that is enough. Why should they want to feel or be better than well? Thus they keep the poor animal machinery constantly goaded up to the top of its power, and ever and anon groan under the bitter consequences. I am well acquainted with a man who, with a constitution defective by birth, would get along pretty comfortably for a few months together, in summer and in winter, while in the moderate use of tea, coffee, tobacco, spices, animal food, &c., &c., but who suffered much on turning the autumnal and vernal corners of life. From the unnecessary (to use no harsher term) use of stimulants, all the ready, disbursable power was required to keep up a comfortable degree of healthy action, even during the favorable periods of labor—but when changes succeeded, the task was more difficult; the disposable power was inadequate to the continuance of that degree of action; a faltering, therefore, of the action, and much concomitant disturbance and suffering, were the legitimate consequence. But on adopting and pursuing a different course of living, and thus giving the law of

special economy more scope, he has succeeded now for quite a number of years in keeping the magazine of "vis vitæ" so well supplied with the "precious" article, ready for use at all times and on all occasions, that he has been carried through the inequalities of life, for the lapse of time just referred to, very comfortably, so far as good mother nature has been concerned.

The FOURTH Division of the general law may be denominated the LAW OF DISTRIBUTION.

Its object is, to make distribution to the several parts of the body, as they have need, and the state of the vital funds, and the safety and general good of the whole community will warrant.

In my first attempt to make out a division of the general law of life, I was much perplexed with that part of it which is here called the Law of Distribution. Laboring under a dim and misty impression derived from the old notion of immediate and remote sympathy, counter irritation, revulsion, &c., I called it the Law of Sympathy. But after much careful observation and reflection, I became satisfied that there was nothing in the physical part of man that deserved the name of sympathy. The different organs of the body have no more fellow feeling for each other, than the different articles of furniture in a room have. As the latter receive their proportion of the caloric that may be in the room that contains them, by the law of distribution, in proportion to their respective capacities for imbibition and retention, so the different parts of the human body get and retain, till they use it up, all the vital power they can grasp and hold, never giving back anything, nor imparting to others. In this respect the comparison just made fails. Place a cold piece of furniture beside a warm one, and the latter imparts a portion of its warmth to its cold neighbor. Not so with the members of the human body as respects the commu-

nications of the living principle. An important organ, so essential to life that the whole machine must stop if it gives out, may be obliged to suspend action for want of power, while many of its neighbors are in almost full vigor. They may have strength enough, so far as they are individually concerned, to hold out for years, and yet impart none of it to the suffering organ, although doomed to sink with their dying companion. The synchronous affection of two or more organs, or affections of these organs alternating in quick succession, which are very common occurrences, are most relied on in support of the doctrine of sympathy. But be it remembered that it is only when the parties concerned are all of them nearly or quite bankrupt, and dependent on the general funds, from the common depository for power, that they manifest anything like fellow suffering, which would not be true were they tied together by a cord of sympathy.

The head and stomach furnish as much evidence of sympathetic action as any parts of the body, but when one of these is sound, and strong in its own strength, it never sympathizes with the other in its distress. Pour tartar emetic into the stomach of a strong, healthy man, till this organ is thrown into violent and most distressing spasms, and the head is not pained at it. Beat the same man over the head till that aches, and the stomach is not disturbed at it, unless the beating reaches the stomach's source of power, and cuts off its supply, and thus brings it into a suffering condition. In that event the stomach suffers on its own account, not because it is afflicted in view of the abuse and suffering of its particular friend, the head. In the common sick headache, and other kinds of affection, where both the stomach and the head suffer together, causes have operated to diminish the vital energy of both these organs;—they suffer, therefore, each on its own account. If the pain of head and

sickness of stomach alternate each other, it is owing to a partial supply of power from the common fund. For a few moments the head receives a little aid, and the action therein is raised to a more tolerable or comfortable point, while the stomach is laboring under agonizing agitations; then for a short period the appropriation of aid is transferred from the head to the stomach, and the motions of the latter organ are rendered more steady, while the action of the vessels of the head falls back again into a painful, throbbing state.

This reasoning is applicable to other parts of the body, that often appear to sympathise with each other in suffering, and which, by some, have been grouped together in circles or classes, according to the degree of relationship they may happen to manifest to the fancies or minds of the classifiers.

Another source of evidence in favor of a sympathetic union between animal organs, is supposed to lie in the fact that stimulating applications, as blister plaster and the like, made to certain parts of the body, produce relief, (temporarily at least,) to other portions that are in a suffering state. But the temporary benefit produced in this way, is to be accounted for on the general principle of excitement, which will be noticed more particularly under another division of the general law of life, which will be called the Law of Stimulation.

The Fifth Division, or Law of Accommodation.

This is a remarkable, and in this sin-ruined and suicidal world, a useful faculty of the economy of human life.

We have a practical illustration of it in every heavy consumer, by internal use, of alcohol, tobacco, opium, arsenic, and other narcotics and stimulants. In its natural unguarded position, the human system, though in the most perfect soundness and vigor, is easily injured, and even destroyed, by the unaccus-

tomed internal action upon it, of any condensed and powerful irritant, in considerable quantities. But if a small quantity, well diluted, be commenced with, and gradually increased, in process of time a good constitution may be brought to bear, without apparent injury at the time, enormous quantities of very active poison—in one day a quantity sufficient to kill a number of men of equal strength of constitution, that have never used the article. In common parlance, this is accounted for by saying, "the system gets accustomed to it." The law of accomodation puts the parts on which the poison acts, in a posture of defense, by coating over the delicate nerves, and by collecting and keeping in force on the field of action, a standing army of vital forces. As my principal object in this analysis of the general law of the economy of human life, is to prepare the reader for a better understanding of the true nature of what is called disease, and as it affords a favorable opportunity for calling attention to the elementary parts of impaired healthy action, it may not be amiss to dwell a little on this branch of my subject.

We will suppose a sound, healthy human system invaded for the first time by its potent and mortal enemy—king alcohol. Its economy of life, unlearned and unpractised in the absurd doctrine, "in time of peace prepare for war," and unsuspicious that any foe would disturb the harmony of her action, has appropriated no more power to any department of labor than is requisite for the faithful performance of the work pertaining to that department. The parts of the system, therefore, that are called to meet and battle with the enemy for the first time, although it be but a brush with a small vanguard, or a few straggling pioneers, tire and stagger under the additional burden imposed upon them. The distressed condition of the injured parts calls into action the law of stimulation, or the rallying power, the division of the

general law next to be considered, which opens the nearest repositories that can most conveniently and safely furnish the necessary succor; this is handed over by the law of distribution to the law of economy, and this removes the injury that has been inflicted by the enemy, as far as that can be removed for the time, and puts the organ in a condition to receive and sustain future assaults with more ease—provided the assaults are made within a short or limited period. For upon the principle of not preparing for war in time of peace, if another assault is not made soon, things are again put "in statu quo, ante bellum." But the assaults are repeated, again and again, with increased and increasing force, and at short and still shorter intervals. The law of accommodation also enlarges its operations, making heavy and still heavier drafts for power, and while the drafts are honored to the full extent of the demand, everything is done that can be done to obliterate the effects of the alcohol, and at the same time maintain the action of the parts at its usual healthy point.

But, "a continual dropping will wear away stone." The vital energies, within the call of the law of accommodation for the parts that have been subjected to the action of alcohol, become so diminished that it is imprudent or unsafe to grant a supply to the full demand or necessity of the case, consequently the vessels concerned, occasionally, and soon frequently, tire and flag, more or less, as the causes of derangement are used more or less freely, and as other attending circumstances favor or retard the vital operations. On the whole, however, the difficulties are increasing, as is obvious from a bloated, haggard countenance, diminished appetite and strength, and other general symptoms of disturbance, indicating an approaching crisis. At length, the resources are reduced to the last extremity, the law of limitation, to be mentioned shortly, is put in operation, and the maimed, exhausted

parts are compelled to go into liquidation, to suspend or at least partially so, their customary operations and expend all their income of power, or what they may have at their command, in repairing injuries. We have here an epitome of disease, and may learn by it the simple reason why action ever deviates from the natural standard, viz, *want of vital power to prevent it.*

The history of the old bastile furnishes a striking instance of the power of the accommodating principle of the economy of human life. A man was found incarcerated in one of the cells, who had been confined there eighteen years, and his only bed a hatchel, or a plank pierced with sharp nails, whose points protruded on the side on which he was obliged to lie without protection from the action of the nails. Although his sufferings were great, almost beyond endurance, for the first two weeks, yet when removed by his friends, and furnished with soft lodgings, he begged to be restored to his old bed, for he could now rest no where else. But the same kind law which accommodated him to the hatchel, would soon accommodate him to a soft bed.

It will be in point to remark here, that keeping the human system accommodated to the action of noxious powers, so that the sensibility shall not be kept under torture by it, is an expensive business. It is a great mistake, therefore, that most people labor under, in supposing that "getting accustomed to the use" of stimulating or poisonous substances, renders them harmless, or disarms them of any of their power to do mischief. To prevent the deleterious matter contained in hard water from keeping up a constant irritation in the systems of those who make a free and habitual use of it for drink, and in the preparation of their food, costs a great deal. I select this article for notice at this time, from among the multitudes of hurtful substances that are in common use, because I have

recently known something about it from personal experience. That hard water does contain something unfriendly to vitality is obvious from its effects on hands that are washed much with it. As the covering of these is firmer and better able to endure hardships, than the delicate membrane which lines the internal surface of the vascular tissues of the body, in close contact with which the irritating substances in question must unavoidably come, if passed into the stomach, the latter must be much more obnoxious to its baneful influences than the former. No doubt much of the scalled, blistered lip, sore mouth, sore eyes, and other febrile affections known at the west, and other regions where hard water abounds, is attributable to its use.

To the law of accommodation is committed the charge of broken bones, cuts, bruises, and all other injuries, and when the organization is sound and good, and the system plentifully supplied with power, and nothing to impede the operation of this law, the healing or repairing process proceeds rapidly—under other circumstances more tardily. This law cushions the bottom of the feet with a firm thick cuticle for those who walk much unshod, guards the hand of the manual laborer in a similar way, &c., &c.

The SIXTH DIVISION of the General Law, is the LAW OF STIMULATION, or the Rallying Power.

The office work of this law is to sound an alarm whenever an enemy invades any portion of the vital dominions, and open the magazines of power, that the necessary distribution of forces may be made to meet the existing exigency.

This law will also perform the friendly office of opening the store-house of vital energy, through the intervention of the mind, when difficulties or dangers call loudly for it. For example, a feeble woman learned that a young child of hers had fallen into the ell. There being no other person near, that could

afford the necessary succor, the alarming condition of the child excited the rallying power of the mother to such a degree, that she at once descended the well, and brought up her child with ease—a feat of strength that she could by no means perform under ordinary circumstances, and which cost her a number of days of confinement to her bed.

Under proper regulations and restrictions, the law of stimulation may often be made subservient to mental effort, without injury to the bodily health. The mental machinery is as dependent on the vital power for vigorous and energetic action, as the hands or feet are; and when circumstances do not demand a greater expenditure of this power upon the organs of voluntary motion, than is necessary to give development and tone to the general system, a rigid economy will enable persons of tolerable firmness of constitution, to accumulate so much of the vital force in the appropriate repositories, that they can often, if not at pleasure, draw pretty largely for the use of the brain.

Some men have learned the art of using this law to very good account in public speaking. They often exhibit an amount of talent on these occasions, that ordinarily seems wholly beyond them. This is a valuable acquisition, where no artificial stimulants are used as adjuvants, and the law of repose is allowed seasonably to replenish the receptacle of vital power. But under a sad and awful delusion, the law of stimulation is now very generally and very extensively used, not for the benefit of any department of our being, but to the injury of every department.

In the light shed upon this subject by the temperance reformation, and by improvements in physiological science, it is now easy to explain how the world has been led into this delusion.

Every man has implanted deep within him a desire for happiness—to feel well. Now healthy sensibility, or physical good feeling, depends upon strong, healthy

action; and this upon a full supply of vital power; and since it is by transgression of law that the vital forces become weakened, healthy action impaired, and good feeling vitiated or converted into uneasiness or pain, the use of certain substances which are now properly called irritants or stimulants was found to elevate depressed action, and relieve oppressed, uneasy, and painful sensibility; and it was also found that the *moderate* use of these elevators was not followed by any *apparent* bad consequences:—hence the conclusion that in some way their action chimed in with the action of the living principle—that they "helped nature"—and, when not used to *excess*, or so as to be followed by "indirect debility," no harm was done. Or, perhaps the opinions held by some physicians prevailed, that action itself created power; that the mill had a pump, or some other machinery, by which it supplied itself with the means of its own propulsion; and that all that was required of art was to keep the action at or near its natural or ordinary standard. But, thanks to the Author of all good, light is beginning to dispel the darkness that covered the earth, and the gross darkness that covered the people. Temperance statistics are doing much to aid in the progress of correct views upon this subject.

A number of years since, Dr. Mussey, in a temperance address, remarked, "Alcohol increases action, but it diminishes the power of that action;" and facts most conclusively establish the truth of this position. And what is true of alcohol, in this respect, is true of all other irritants or stimulants. They increase action, for a brief period, when they can command the means for doing it, but diminish the power of that action, and in exact proportion, too, as they augment the action. For the increase of action is occasioned by an extra quantity of power which they call forth by a compulsory process; and therefore the quantity of power is diminished by that amount, which is a

needless waste, for the power is wanted for other purposes, and will be used more judiciously and advantageously by the undisturbed law of appropriation and distribution. And, moreover, the action of irritants upon sensitive parts is further mischievous, inasmuch as it "counteracts the living principle," breaks in upon the harmony of very complicated vital operations, whose only tendency is towards the point or standard of perfect health, and "disconcerts life's healthy movements;" and not only so, but irritants in their action upon the living human system, do still further mischief, by inflicting a positive injury, in wounding the parts on which they act, and this wound requires time for its removal. These effects of irritants, both general and special, will be considered more at large in Section Fifth, under the head of causes of impaired health, and their mode of action.

The constitutional tendency of our physical being, from first to last, is upwards; the tendency of stimulation downwards. The higher the former rises in the scale of soundness and vigor, the more it can sustain of the downward pressure of the latter. But such is now the very general depressed state of the vitality of the human family, especially in *civilized* and *fashionable* society, that stimulation is, or was before the commencement of the temperance reformation, getting the ascendancy and threatening the extermination of the race.

Now it should be well understood and remembered that this degenerating process is not chargeable upon man's physical nature, at any stage of its existence, nor upon any external Providential arrangements. "Necessity is laid upon" no man to destroy himself, except as he does it "ignorantly." Stimulation is resorted to, to avoid or postpone the payment of a just debt, a very mistaken and unsound policy. "Those who dance should pay the fiddler." The wounded, depressed sensibility cries for relief; it asks for time

nd opportunity to be allowed it for the replenishnent of its coffers, and the repairs of its injuries; ut a compliance with this just and reasonable demand would occasion too much present uncomfortable eeling; the law of stimulation must therefore be kept n force by some means, to keep off "pay day."

When the demand for redress of grievances becomes inexorable and cannot be appeased by the ordinary or every day routine of excitements, recourse s had to "domestic quackery," and poor, suffering umanity is drenched with a decoction of pennyroyal, wild hyssop, may weed, or the like, with a design of *sweating off* the enemy. If this effort fails, his expulsion is attempted in another manner, by the exhibition of picra, rhubarb, aloes, Brandreth's pills, or some such bitter, loathsome, abominable stuff; and if the enemy is not yet routed, a temporary quietus must be served upon him, by sheriff Laudanum, or his deputy Elixir. And if, after the whole tribe of "family medicines" has been pretty thoroughly tried, and the kind matron has "doctored herself out," there is no abatement, but rather increase of the call for a substitution of the law of repose for the law of stimulation, more active measures must be employed under the direction of those who are better read and more deeply skilled in the art of opposing such demands.

Now this whole business of stimulating, call it "helping nature," "expelling disease," "removing cause," or what you will, is all of a piece from first to last. The means that are used for quelling disturbances in the system, are of the same nature, so far as ultimate effect is concerned, with those that are used to break down the energies, and lay the foundation for the disturbance. "Drugs and Medicines" act on the same general principle that rum, tobacco, tea, coffee, spices, mustard, horse-radish, &c., &c., do. They are all enemies of vitality—prejudicial to health; they "counteract the living princi-

ple," and "disturb and disconcert life's healthy movements;" and what physicians suppose they effect by what they call "counter irritation," is produced by playing upon the law of stimulation.

When they apply a blister plaster, or any external irritant to one part of the body, and thereby obtain relief in another part, it is not by creating a better action or a more healthy condition in the part acted upon, and transmitting that action or that condition directly across lots, by sympathy, to the affected part, but by a general rallying of the vital forces, as when an enemy makes an assault at one gate or part of a walled city, the commander-in-chief of the garrison within causes an alarm to be sounded, and issues his mandate requiring every man that has strength enough, to be at his post, how much soever he may need repose, for the purpose of recruiting his wasted energies and recovering from injuries, defects resulting from previous conflicts.

Before leaving this branch of the law of life, it may be well for the reader to get impressed with the importance of maintaining a clear physical conscience. He may do this by attending to a comparison between a temperate and an intemperate man. They possess natively similar constitutions. A. has been provident of his, has been temperate in all things; B. intemperate. Aside from the fact that B. is using up his energies faster than A. and must of necessity come to the end of his life sooner, even if no sudden providence cut off either, B. is always in danger of terminating his existence by pushing the law of stimulation too far, and drawing, unwarned, the vital current below the point of recovery. On a hot summer day, they both go into the field and mow for a trial of their strength. On the first day, perhaps, B. gains a victory—holds out longer than A., and appears less fatigued. The cold water man is ridiculed. On the second day, B. drops dead over his scythe, or beside the bucket. A.

may feel weary and tired as he leaves the field, or distress himself by drinking too largely of cold water, but is in no danger of destroying life. His clear physical conscience, or healthy sensibility, will warn him of his danger long before he reduces the vital energies to a fatal point.

The advantages of a good physical conscience are too obvious and too numerous to need or admit of a full notice here. The individual who is so fortunate as to possess one, is in much less danger of violating physical law than one who does not. If the former were to receive into his stomach but a small particle of black pepper, though intimately mixed with his food, unperceived by him at the time, it would inflict a pang on the tender, upright sensibility, that would be remembered a long time, and operate as a caution agaist further transgression. Another benefit derived from a good physical conscience is, that while it guards against the admission of noxious substances into the system, it also imparts a very high relish to those plain, simple substances, that are adapted to the wants of the body.

Every body knows how cold water is relished by "a thirsty soul." The Wise Man compares it to "good news from a far country." This relish arises from the adaptation of the water to the state of the body; it is a *natural* relish; the water just meets a pressing want. Just so it is with simple nutriment taken into a healthy stomach, where there is a demand for food —and no one should eat without the existence of such a demand; and with a good physical conscience, one is in much less danger of eating without, or beyond a seasonable and salutary call for food. Indeed, a stomach restrained to plain, simple diet, (a sine qua non for a pure sensibility,) would never relish food unless there was an actual necessity for this raw material in the body, any more than such a stomach would relish pure water when the fluids of the system

were already sufficiently diluted;—and it is equally true that a vitiated stomach would not relish unstimulating food, without a good appetite, and be in still less danger of being unduly loaded with such material. How strange, then, that any one who has his physical conscience somewhat purified, should be willing to have it seared again?

I have heard of men, who, having abandoned the use of all excitants, and lived on plain vegetable diet for a considerable time, resumed their old mode of living, for the alleged reason, that, as they were obliged to be much from home, and were under the necessity "when among Romans, of doing as Romans do," they suffered much from stimulating diet with stomachs unaccustomed to it! But what would be thought of a man who should act thus in relation to his moral conscience? He found it so painful, with a keen moral sense, to utter an oath, and being much among profane swearers, he could not at all times well avoid it, therefore he chose to be in the habit of swearing, that he might avoid the lashings and goadings of a tender conscience!

The SEVENTH division of the general Law of Life, or the LAW OF LIMITATION.

Its object is to prevent an unnecessary waste of the vital powers, and especially a fatal exhaustion of them "before the time."

For an illustration of the Law of Limitation, and also that of Stimulation, which has just been the subject of remark, I will give an extreme case of impaired health, in which both of these divisions of the general law bore a conspicuous part.

In the fall of 1822, Mr. Isaac Treat, then of Derby, Ct., about thirty years of age, previously of good constitution, by occupation a farmer, sickened with typus fever. From the alarming aspect of the case from its commencement, at my special request, Dr. Dowe, of New-Haven, whose merits are above my praise,

was in daily consultation with me during most of the progress of the disease to its crisis. Among the most urgent symptoms, for three or four days, were great general uneasiness and short, difficult breathing; and in our prescriptions we had special reference to these, but with very little relief to the patient. Under these circumstances Mr. Treat inquired of us whether it would do for him to take some brandy, expressing a belief that it would help him. We objected at first, from a conviction that alcohol in any form was contra-indicated by a quick pulse, great continued heat, dryness of the skin and soreness of the chest.

However, we yielded to his importunity, after making a fair trial of diffusible stimulants in a variety of forms, with but very partial success. The first drink of brandy told upon the poor sufferer. In the language of our patient, "it was just the thing, it went to the spot." To our surprise it acted like a charm, it diminished the frequency and quickness of the pulse, removed the heat and dryness of the skin, and the soreness of the chest; relieved the difficulty of breathing, and general uneasiness; improved the secretions: lighted up the countenance; imparted fresh life and animation; and, in short, made him appear and feel like a new man. For eight or ten days the brandy held its sway, and all other medicines were laid aside. It was found necessary, however, to increase very considerably the quantity of brandy to obtain the same amount of relief; and in the course of three or four days, he was taking at the rate of about two quarts of strong brandy in twenty-four hours.

At length this potent remedy lost its influence over the vital machinery, palled upon the senses, its very name was loathed by the patient, and of course its use discontinued. We had nothing now by which we could rally our forces, or make any impression upon the *enemy*, but stood powerless before it. Not an arrow in our quiver that could reach it. Our patient

fell into a death-like coma or stupor, entirely insensible to all that was passing around him:—the extremities grew cold, pulse failed at the wrist, the bowels became tympanitic, or bloated, the power of deglutition was suspended, and hope departed. Although there seemed to be nothing wanting to close the scene but a slight depression in the respiatory function, yet, as we looked in upon him from day to day, there was evidently a perceptible decline.

On the third day of extreme declension, there was an obvious though very slight improvement in the appearance of the man, and from that time he gradually recovered to enjoy at times tolerable health, and still lives, (or was alive two or three years since,) though he bears about in his body, and always will while he tabernacles in the flesh, the marks, not of the disease, but of the Doctors, or the brandy, which the Doctors would now know better than to pour into a *living* man. When I come to treat of alcohol as a cause of impaired health, I will explain the manner in which the brandy inflicted an irreparable injury on Mr. Treat.

I will now give an explanation of this case, according to my present views of it, for the purpose more particularly of illustrating the laws of Limitation and Stimulation.

Typhus contagion was the cause of the derangement in the system: it had operated and finished its work: there was, therefore, no cause to be removed: the *effect* of the contagion, or an *injury* that had been inflicted by it was to be removed, but this could only be done by a vital process, and in the carrying forward of that process, it was necessary for nature to make certain developments, or produce what are commonly called symptoms; there was no other way to compass the object; for there was not power enough in the system to carry on the restorative operation, and at the same time continue the cardinal functions in their full vigor. The law of limitation was called into opera-

tion, and such curtailments made as the case demanded, and the power thus saved applied to the respirative machinery. As power was withheld from the nutritive apparatus there was of course no call for food —no appetite. The muscles of voluntary motion being deprived of power, the man was thrown upon his bed, unable to help himself; diminution of power in the respiratory organs occasioned the short and difficult breathing;—in the vascular system, the frequency of the pulse—in one portion of the calorific system, increase of heat, &c., &c. What power there was in the system, was being used to the best possible advantage, just where it was most needed; there was then no danger in leaving the case in the hands of nature* under good supervision or kind treatment. But at that time we thought differently, and tried to "help nature" ourselves, or do some of her work for her. Our medicine and the brandy all acted on the general principle of excitement, played upon the law of stimulation, rallied and brought into the field again a portion of the forces that had been shut off by the law of limitation for a most important purpose; "increased action but diminished the power of that action."

But when danger came to threaten from another source, to wit, the fatal exhaustion of power from other parts, which exceeded the danger that was accruing from the action of the brandy, the law of limitation was put in force again most inexorably, so that nothing that we could do, or did do, (and we used strong provocatives internally and externally,) prevailed at

* Nature. As I shall use this word frequently for convenience or brevity's sake, I will here say that I mean no more nor less by it than the whole, or general economy of human life—that strong tendency to do just right, which is implanted or infused into every part of the system by its maker, and which makes so judicious a distribution of the vital power, that many have been led to suppose that there was a presiding genius, or intellect, distinct from the human soul, resident in some portion of the brain, that presided over and directed all the vital operations. Van Helmont called this supposed genius, Archæus.

all to relax the grasp that was laid upon the gate that shut off the power. We then desisted from all interference with nature's operations, and left her to do her own work, in her own way. When she had carried the repairs of the latent machinery to a point of comparative safety, and funds had accumulated to a warrantable extent, appropriations, small at first and gradually enlarged, were made to the heart, arteries and other parts, according to their importance, and as a prudent disposition of the power would justify, and in process of time the man was on his legs again,—but I fear the vital energy will never be able to "undo" wholly "the heavy burden" imposed by the brandy, and "let the oppressed go free." The last I heard of Mr. Treat, he was subject by spells to inability to speak loud, sometimes for a number of weeks together.

This case would have been a severe one under the best of management, but it was made more severe and protracted by the opposition that was made to the wise and judicious arrangements and operations of the natural and rightful guardian of the physical system. The brandy *appeared* to do the most good in this case, because it *actually* did the most harm.

"How is it possible," said a lady to me, to whom I had recommended the discontinuance of her favorite beverage, "that coffee can injure me, when it *seems* to do me so much good." "For that very reason it injures you. You like it on account of the exhilaration of the animal spirits which it produces, and this occasions a waste of those spirits, which you cannot well afford."

All excitants operate on this principle—there is no possible chance for them to do good in the living human system, and just in proportion to the susceptibility of the tissues on which they respectively act, is the *apparent* good and *real* evil done. This susceptibility lies in the feeble unguarded state of the part on which

the irritant is to act, and increases as the debility increases, and diminishes as the energy of the part rises. And the power to resist temptation to the use of the means of exhilaration, when within reach, is unfortunately, inversely as the susceptibility. Hence the great difficulty which topers experience in holding back, when they once get into the slippery, down-hill road of drunkenness.

Attachments to the use of tobacco and other noxious substances are formed and strengthened on the same principle—and the yawning, deepening gulf of licentiousness is entered and wallowed in by an abuse and perversion of divinely constituted functions, which, in a perfect state of society, would crave no indulgence beyond a legitimate and proper use. In view of the destructive influences which the grand deceiver has been instrumental in setting in operation, through his delusive wiles, for breaking down the physical energies of men and thereby deranging their bodily organs and functions, that he may the more easily captivate, enslave and destroy their souls,—it has been exceedingly interesting to me, in watching the operations of the economy of human life, to contemplate the conservative principle of the law of Limitation.

When the law of Stimulation has been crowded to an extreme and almost fatal point, the law of Limitation interposes and says, hereto may'st thou come, and no further. The desire for the stimulus then ceases, be it rum, tobacco, opium or any other irritant.

Under these circumstances let an inebriate turn some alcohol into his stomach, prepared in the most inviting form, and it will lie with crushing and tormenting weight upon that organ until it is rejected. Nothing can be more loathsome to the individual than the very thing, for the procuring of which at another time, he might be willing to risk his life in front of the cannon's mouth, if that and that only offered a chance of obtaining it.

Now the poison, whatever it may be, shows itself in its own true colors, bites and wounds the sentient parts without being able to cover over the smart. The direct effect of these substances is always unpleasant, and never would be sought for in itself considered. No one would ever like the simple, unmixed impression of alcohol, however much he might be habituated to its use; it is only for the sake of the increased action which it occasions, and the glow of feeling connected with it, that its use is indulged in.

I am aware that some claim an exception to this rule of action for stimulants in general, in favor of rum, on the ground that some very young children seem to relish its pure taste. If there are young children that possess such an idiosyncrasy, it is because they have a vitiated sensibility handed down to them from their progenitors—a wretched inheritance.

But it is not only on extraordinary occasions that the law of Limitation exerts a conservative influence; it is ready on all occasions, when the vital energies are low and need recruiting, to interpose its kind office as opportunity for doing good may offer. Let an inveterate rum-drinker stop plying the law of Stimulation with scorpion goad, and the appropriation of power to the departments of the body that have suffered by the long continued excitement, is at once graduated to a degree of action in those departments just compatible with the present safety of the system, for renovating purposes. Suffering, greater or less, with other tokens that would be regarded by superficial or ignorant observers as indications of an adverse change, would be the immediate result, but the sequel would show a happy issue.

The opportunity furnished by the abandonment of other stimulants and pernicious, debilitating practices, is, in like manner, seized upon and improved by the law of Limitation, for repairing injured parts and replenishing empty coffers. From the very general *ap-*

parent detriment experienced in the early stages of the restorative process, consequent upon the sudden cessation of protracted excitement, this all important work has come to be regarded as a pulling down or destructive, rather than a building up, operation. And from unfortunate trials of an unstimulating diet, made under a false expectation of immediate advantage in appearance as well as in reality, a very extensive impression has been made that man needs something more than simple nutriment incorporated into his physical system, or to propel its action, in order to the highest development of his physical and mental capabilities. And some men have suffered their prejudices on the subject to lead them to suppose that a pure vegetable diet would not only reduce human beings to a pigmy size and skeleton form, but would also dementate or craze them.

When it was known, a few years since, that Mr. David Cambell was about to take charge of the boarding establishment connected with the Oberlin Collegiate Institute, the Boston Medical and Surgical Journal recommended that the Institute should be provided with a retreat for idiots and lunatics. But unfortunately, before a sufficient time was allowed to ascertain how large a retreat the Institute would need under a full and fair experiment of Cambell living and influences, from some very trivial developments, "a panic was got up" that drove Mr. C. from his post, and let in the enemy like a flood.

Whatever might be true with regard to the O. C. Institute, on a fair trial of correct living, there can be no doubt that most of the literary institutions of the land would need temporary places of refuge for insane persons and idiots, if they were to be restricted to a non stimulating diet and correct habits of life.

While penning the above article, the question occurred to me—"What would be the result of a sudden and universal cessation of hostilities against the vital

economy, throughout the length and breadth of the land?" Imagination would fail to draw a picture equal to the reality.

Nature would hold a jubilee. The law of Limitation, with all the co-ordinate branches of the general law would be put in immediate requisition for prompt and efficient action in their respective spheres, and it would require a number of expert nosologists to systematize the innumerable variety and grades of action which they would produce by their play upon the vital forces.

But how could a sufficient number of asylums be provided in season for the large class, *non compos mentis*, that would spring up, from delirium tremens or mania a potu down to the tame simple dolt? Perhaps the public buildings, such as college edifices, school-houses, churches and halls of legislation, would answer the purpose;—these could be spared for that use, for the colleges and schools would have a long vacation, and the pulpits and bars would be unoccupied.

In the event of an experiment being made of the kind and on the scale here suggested, I would recommend that the conductors of medical journals, with their posse of operations, suspend a participation in the experiment until the grand crisis is past, lest none should be found to note, and, for the benefit of posterity, chronicle the marvelous developments that would be made.

The EIGHTH and last division of the Law of Life may be called the LAW of EQUILIBRIUM.

The end to be answered by this portion of the general law is to assist feeble organs, and, as far as possible, produce a perfect development of the whole system in size, form, beauty or symmetry and power.

Nature abhors deformity or imperfection, as she does a vacuum, and all the means which she can command, over and above the unavoidable or more immediately essential appropriations for other purposes, are

faithfully applied to the symmetrical development and finish of the master-piece of vital mechanism—the human system.

This law affords all the advantages that could accrue from a law of sympathy without any of its disadvantages. While each organ stands in its lot and makes a faithful and judicious disbursment of all the power committed to its care, in the discharge of its own appropriate function, the law of Equilibrium is always ready and prompt to afford succor to any department that may be in special need of aid, to the full extent of its ability.

The foregoing division of the general law of life is of course arbitrary. The object of this artificial division is to introduce the reader as it were into the different departments of the divine work-shop, that he may get some idea of the matchless economy and skill with which power is used, and the different branches of labor conducted, and be better prepared to understand the true nature of impaired action.

It should ever be borne in mind that life is a unit—the principle of life is indivisible and immutable—that the law which controls this principle is fixed and uniform in its mode of operation,—and that however multiform and numerous are the instruments of motion, and however diversified their action, there is but one end to be answered by their individual and continued movement—the greatest good of each and all—the highest possible degree of health.

SECTION III.

THEORY OF DISEASE—GENERAL AND SPECIAL—WITH EXAMPLES IN ILLUSTRATION.

The term disease has been used, both by physicians and others, to designate some *apparent* deviation from the natural healthy state; and the evidences of such deviation have been called symptoms. For instance, an increased frequency of the pulse, or any deviation of the pulse from its natural motion, or change of temperature, cold chills, pain, &c., have been considered evidence of a disordered and disordering state of the system, or parts so affected; and these symptoms have been arranged by different leading teachers of medicine, according to their respective fancies, into classes, orders, genera, species and varieties. In medical language, this classification is called Nosology, from two greek words, *nosos*—disease, and *logos*—treatise or doctrine,—treatise on disease, or doctrine of disease. And, formerly, physicians in their treatment of disease, had respect only to the symptoms; and when by the use of means or otherwise an individual was brought out of or recovered from a fit, fever, pain, spasm or any development of impaired health, and restored to ordinary soundness, it was deemed sufficient—inquiries were pushed no further.

The general notion of disease seems to have been something like the following. Certain causes, most of them beyond human control, bring the system into a condition in which some of its elements or component parts become rebellious, and threaten the destruction of themselves and all with which they are connected. But, latterly, physicians, have become divided on the question—"What constitutes disease?" Some contend that the symptoms do not constitute it; that these

are merely effects—consequences that are flowing from something before them; and, that the latter, whatever or wherever it may be, forms the disease;—while others still maintain that disease lies in the symptoms. One author says—"Disease may be said to consist in the totality of its symptoms."

A physician of considerable note, with whom I was once in consultation on a particular species of disease, (inflammation of the bowels,) in answer to a series of questions which I propounded to him for the purpose of ascertaining his view of what constituted disease, answered, "morbus ipse." That is, the disease itself constitutes the disease.

The late justly celebrated Dr. Smith, professor in the Medical Institution of Yale College, in his Treatise on Typhus Fever, uses the following language—"since the disease is known only by the phenomena it exhibits, these phenomena may be considered as constituting the disease, or all we know of it." Dr. Smith was a close and accurate observer of the operations of nature; and although, like most other physicians, he was sometimes bewildered in the mazes of metaphysical pathology, which had piled system upon system until the whole was crushed in one promiscuous mass of ruins, yet, in practice, he was generally simple and true to nature.

In speaking of the treatment of typhus fever, Dr. S. says—"If it arises from a specific cause and has a natural termination, it may be a question how far we are to attempt a cure of it; or if we possess the power, whether we can with propriety cut it off in its commencement, and by art prevent it's running it's course." And it is well known by those who are acquainted with Dr. S's practice, that he made no attempt to "break up" typhus fever, and was very successful in his treatment of it.

The above was good reasoning; "If it arises from a specific cause, and has a natural termination," (and

all diseases arise from specific causes, and would have a natural termination if not interfered with.) it is well worthy of inquiry, why it should be broken up, if we possess the power to do it. But in theorizing again on one of the symptoms of fever, namely, the chill or cold stage, the Doctor falls back into the dense fog of the "wrong action" theory, and makes "confusion worse confounded." He reasons thus—"The paleness of the skin and the sense of cold, spoken of alone, which attend inflammation and precede the attack of fever, or the development of those phenomena to which we usually apply the name, and which is followed by an increase of the action of the heart and arteries, I explain in the following manner:—

Before the diseased action can take possession of the capillary vessels, the natural and healthy one must cease, unless disease be a mere increase of the healthy action, which we have abundant reason to believe is not the case. It is during this interim, that is, between the interception of the natural healthy action, and the complete establishment of the diseased one, that the patient feels the chill." Poor capillaries! The friendly power which has had the possession of them from their infancy, and kindly controlled all their action, suddenly abandons them, and they are beginning to feel the harsh rough gripe of a cruel adversary, who will do what he can to destroy them! No wonder they change color, send a chill through the whole frame of the patient, and make him shake like an aspen leaf, and cause his teeth to chatter. Why, it is enough to make a statue of brown marble turn pale and tremble.

Dr. S. says—"Before the *diseased* action," (that is, the wrong action, or one different from the old,) "can take possession of the capillary vessels, the natural and healthy one must cease, unless disease be a mere increase of healthy action, which we have abundant reason to believe is not the case." Now there is abun-

dant reason for believing that the diseased action here spoken of is not a mere *increase* of the natural healthy action, but there is no good reason for believing that it is not mere *diminution* of the natural healthy action, or that it does not arrive from a diminution of power in one branch of the complex apparatus for making and providing or regulating animal heat, as I shall endeavor to show in the next section, in the analysis of symptoms. The diseased action is the same in kind as the natural healthy one; the instruments of motion are the same in the one case as in the other; the power which moves them is the same in both, and the law or rule of action is the same.

It is not surprising that physicians should differ about the nature and treatment of disease, when they differ so widely as to what constitutes disease, or rather it is not strange that they should mistake the true nature of disease when they are all so obviously mistaken as to what constitutes it. Although a portion of them have come to see the great absurdity of making the disease to consist in the symptoms, yet even these do, in point of fact, consider and treat disease as constituted of the symptoms. At these their whole treatment is levelled and at nothing else; and when these are subdued they sound a retreat, and not before. It is true they think and maintain that they aim at something beyond or deeper than the symptoms—something which they suppose constitutes the disease, and forms the foundation on which the symptoms rest, and whose removal removes the symptoms.

Let us examine for a moment this foundation on which the *symptoms* are supposed to be *based.* We will take, for example, the celebrated Bichat, who saw and most graphically depicted the error of others on the very point we are here considering, and yet, as I think will be manifest, fell into the same error himself.

"Every remedy," says Dr. B., "which, in local in-

flammation, does not diminish the augmented irritability, and which does not diminish animal contractility in convulsions, and elevate it in paralysis, fails in its object, and is contra-indicated."

Repudiating the idea that the symptoms constitute the disease, and expecting to find something *tangible* at the bottom of the symptoms that does constitute it, Dr. B. takes local inflammation and follows the symptoms back until he comes to "augmented irritability," and mistaking this for the disease or *seat* of the difficulty, institutes a course of treatment with a view to demolish this foundation, and thereby remove the symptoms.

But what, in the name of common sense, is "augmented irritability?" Who would ever dream that such a thing would fasten upon a sound healthy man without a cause underneath to bolster it up—a something to give it support, or a *want* of something occasioning its presence? The irritability is as clearly a *symptom* as the redness, heat, soreness or throbbing pain; it is part and parcel with them. And in "convulsions," simple convulsion, "animal contractility" not only makes *one* of the symptoms, but is itself the sum and substance of the whole; for unless we call the interruption of it—its relaxation to get breath, or renew its strength—a symptom, there is no other. And in "paralysis," or simple palsy of a muscle, *want* or *deficiency* of contractive power embodies the symptoms. Increased action in the vessels of the part affected was formerly held to be the foundation of inflammation—and true indication of treatment was supposed to be to subdue the increased action.

But now many who renounce this notion of inflammation, and agree with Bichat in saying that symptoms do not constitute disease, yet disagree with him in holding that augmented irritability lays the foundation of the difficulty, and maintain that *congestion* of the vessels gives rise to the symptoms—that in

some mysterious way these vessels have become distended beyond their power of self-relief.

Others, again, think they have discovered the true source of most of the derangements to which the human system is liable in an unequal excitement—that the balancing power of the system is disturbed and needs correction, &c., &c.

But whatever views are entertained with regard to what constitutes disease, or what may be its character, all agree in this, that something must be done to change or correct its tendency. In this respect disease seems to be regarded in the light of a dislocated misplaced joint, which must be restored to its natural position before there can be natural and easy motion; or, like leaven in a batch of meal, which must be removed or the whole mass will be leavened—or, like a man bewildered and mistaking his way, and must be turned about or he will be lost—and that although in many cases nature may herself after a while succeed in the accomplishment of her work, yet art may save her much of the time and labor of doing it. And being successful in their efforts to "help nature," as they suppose at a superficial view, they construe their apparent success into an evidence of the correctness of their notions of disease; and denominate the medicine used according to the nature of the work it is supposed to perform.

Hence, "to what errors have not mankind been led in the employment and denomination of medicines? They created *deobstruents*, when the theory of *obstruction* was in fashion; incisives when that of the *thickening* of the humor prevailed. The expressions of *diluents* and *attenuants* were *common* before this period. When it was necessary to *blunt* the *acrid* particles, they created *inviscants*, *incrassants*, &c. Those who saw in diseases only a *relaxation* or *tension* of the fibres, as they called it, employed *astringents* and *relaxants*. *Refrigerants* and *heating* remedies were brought into

use by those who had a special regard, in disease, to an excess or deficiency of caloric. The same *identical* remedies have been employed under *different names*, according to the *manner* in which they were supposed to act; *deobstruent* in one case, *relaxant* in another, *refrigerant* in another, the *same* medicine has been employed with all these opposite views."

But without detaining the reader longer with the views of others respecting the nature of disease, I will endeavor, in as concise and plain a manner as I can, to give him my own

DEFINITION OF DISEASE.

Disease consists in a failure of the instruments or organs of motion, (either in their single or joint capacity,) to fulfill their accustomed amount of healthy action, through deficiency of power; and also in whatever changes may be effected in the condition of the solids or fluids, as the direct result of such default in action. In my use of the term disease, when used without qualification, it will be in *reference* to the sensible manifestations called symptoms; but not in the common *acceptation* of the word. It will be important for the reader to bear this in mind, to avoid misconception.

The meaning commonly attached to the word is a running down process, or something of a destructive tendency. In this signification its application should be made to the action of noxious causes which precede the symptoms and lay the foundation for them. I shall use the word interchangably with the term *impaired health*, denoting by each a mere negation or rather a relatively loose degree of healthy action.

In the definition of disease given above it is said "either in their single or joint capacity." Many of the functions of the body are of a complex or two-fold character, as the double function concerned in main-

taining the temperature of the body—one for producing caloric, and the other for regulating it. These double or complex functions sustain such a relation to each other that a failure in the due performance of one function may occasion an increase of action, or an increased effect on the part of the other; and yet, jointly considered, their power is deficient for the purpose of sustaining the accustomed healthy action of the whole double tissue of vessels. This is what is meant by "joint capacity," which will be explained more fully in the next section, on "analysis of symptoms." When, therefore, there is a departure from the highest standard of healthy action or a healthy condition in any individual, it is because the parts concerned fail in maintaining such action or condition; not for want of disposition or tendency to do right, but for want of power to do what they would do if they could.

If there is pain in any part it is because the nerves of sensibility in that part have not the power to maintain good feeling; if there is repletion of the blood vessels and redness of parts, it is through want of power to prevent an undue accumulation of blood in those vessels; if there is an accretion of matter in any part of the body above what is natural to it, deficiency of power in the excernents of that part is the occasion of it. In short, if there is any deviation from the natural or right standard, either to the right hand or to the left, upwards or downwards, *lack of vital energy* to prevent such deviation is the *simple, genuine* reason why it exists, so far as mother Nature is concerned.

If a man were shut up in a dungeon without food and drink, vital energy could not prevent emaciation; or if a halter were drawn closely around a man's neck, vital energy, without fingers or some means of loosening the ligature, would find it difficult to prevent strangulation—and there are many other ways and

means of destroying life, suddenly and gradually, of which depraved men avail themselves, despite the conservative power of nature; but what she can do to prevent it she does do. If the true idea of disease can be lodged in the mind at this juncture, future expositions and elucidations will be comparatively easy. It may be of service, therefore, especially in correcting wrong impressions, to state in some respects

WHAT DISEASE IS NOT.

FIRST. It is not one kind of action conflicting with another, striving for the mastery.

SECONDLY. It is not, in itself considered, an effort to improve the condition of the system. Many times has the question been asked me in substance—How is it possible that pain can work a cure? It does not of itself work a cure. No form of diseased action does this; although an effort that is being made by the side of this action, and which is generally the occasion of it, is designed for and tends to the restoration of natural or complete healthy action and healthy condition, yet the diseased action in itself has no such design.

THIRDLY. It is not designed to aid any of the functions of the body on *extraordinary* occasions or on *any* occasion at all. It has been supposed by many physicians that some kinds of excitement or febrile action, called increased action, were sometimes useful in "helping nature" to cope with difficulties. Thus the feverish action which animal eaters *sometimes* have—and many of them frequently—after a full meal, called *digestive* fever, is thought to be got up by nature for the purpose of aiding the digestive process; but there is no such design respecting it, nor has it any such adaptation, as I shall attempt to show hereafter.

FOURTHLY. It is not designed or calculated to remove obstruction, purify the fluids, &c. It often attends efforts made for the accomplishment of these objects, as a necessary consequence; but *its* object is not to do any of that kind of work.

What Disease is.

Impaired health or disease is simply a lower degree of the action of parts affected, taken as a whole, than is performed by the same parts in their highest state of health,* together with such defects in the solids and fluids as flow from such depressed action. In other words, an organ, whether simple or complex, does the best it can under existing circumstances.

When the tide of vital energy is on the full flood, the action of the organ will be at the highest point of health for any given condition of the organ, perfect or imperfect. And as the tide of energy ebbs, the condition of the organ in other respects continuing the same, its action declines in the same ratio as long as a sufficient quantity remains to move it at all, If the tide rises, still, under circumstances otherwise similar, the action mounts up again in the same proportion. And if the synthetical and analytical formation and decomposing functions are seriously or for any length of time disturbed and enfeebled, the solids and fluids will become diseased—ill conditioned—in proportion to the derangement of those functions, the quantity and quality of the nutriment being given. Instances of this kind are seen in hard drinkers. The worn-out, impure, defective particles are not taken up and thrown away as expeditiously as they should be —hence the bloatings, ulcerations, &c., of these men

Seat of Disease.

"Wheresoever the carcass is, there will the eagles be gathered together." The "attacking" or "seizing"

* This I confess is a false standard. The true standard would be, the highest possible degree of healthy action in a perfect constitution. But in this view the present action and condition of all human physical organs and bodies now on earth would be but *diseased* action and condition. Nor can we have any just conception of what the true standard would be; we must therefore be content to adopt such as we have.

and "fastening" or "fixing" of disease upon the system, is no hap-hazard work; it falls just where at the time there is a necessity for it, and nowhere else. Some parts, stored with vital energy, are in no danger of falling into diseased action. The judicious and skillful ship-carpenter, who has undertaken to repair his shattered ship, is in no danger of mistaking a bowsprit for a rudder, and of setting his hands at work on the former, when the latter only calls for repairs.

Some time since I had the oversight of a Mrs. Spencer, of this village, who seemed to be in a rapid decline with pulmonary affection. At the time of the occurrence of which I am about to speak, there were, in connection with much general debility, great internal soreness of the chest, difficult breathing, expectorate of purcelent looking matter occasionally streaked with blood, frequent and quick pulse, hectic flush of the face and other ill boding symptoms, which, together, were rather portentous of a fatal issue. As I was returning home one morning from a visit to Mrs. S., Prof. Finney, (who lived betwen me and the patient, and who had seen her an hour or two before,) after making some remarks on the alarming aspect of the case, and expressing fears that the woman would not live unless a favorable change appeared soon, inquired whether it would not be best to try counter irritation —blister somewhere about the surface of the chest— in order to divert a portion of the morbid action from the lungs?

Looking at the Prof. with some degree of surprise, supposing that he understood my views of disease better than his question indicated, I replied—"Prof. Finney," or rather "Brother Finney," (for in this little fraternity it is all "brother,") "suppose one of your study windows here" (we were standing outside of his house, near his study,) "was in a very damaged state, though not apparent to human observation. Suppose still the builder, an ever watchful superintendent and

repairer, (nature,) to whose searching gaze the whole house was perfectly transparent, and to whom the condition of every part was well understood, had been using his best efforts to work the window over without suffering any external or unusual developments to be made (symptoms) that might disturb and alarm the occupant, but had failed in the effort and was reduced to the necessity of changing his mode of action, which produced a shaking of the frame and sash and rattling of broken glass. You are alarmed and send for brother Turner—(artificial house-joiner or doctor.) You tell him he must do something to save the window from destruction; it is a very important part of the house; you cannot do without it. After a few direct attacks upon the forces that are at work upon and about the window, or skirmishes with the enemy, as he supposes, without availing much, he takes up his broad ax and goes around to a strong back door on the other side of the house, pounds and hacks away at that, hoping thereby to draw off the enemy and reinstate the former friendly and healthy operators. What would be the character of such a course?" "Why, in your view of the subject," said Bro. Finney, "it would be ridiculous." "And no less ridiculous," said I, "for me to hack up the surface of the body, with a view of changing action in the lungs." These are now the true seat of disease; and in the paucity of their present available motive power they are maintaining as high a degree of healthy action as they can consistently afford to—and as there are no ways or means of increasing their *ability* to act within my control, to enforce upon them the law of stimulation, were that in my power, either by internal exhibition or external application, would be but to "counteract the living principle," oppose the wise economy of nature, and thus retard the curative process, if not enhance the danger of utter extinction of life.

In a few weeks, Mrs. S. was enjoying very comfort-

able health, and she has done so, I believe, for most of the time since, which is now more than four years, and this too although she inherits a strong predisposition to consumption. She had lost a sister next younger than herself with consumption about a year before she was sick, which heightened the fears of her friends for her.

Principle on which or Rule of Action by which Disease is conducted.

This is the same precisely with that on which the most perfect healthy action is conducted; namely, to use what power there is in the system to the best possible advantage, be it more or less. This principle will not suffer a single function, however small or unimportant, to be disturbed in its appropriate work unnecessarily. So long as it can build up waste places and repair injuries without withdrawing force from the primary or cardinal organs it will do so. And when it becomes necessary to enforce the law of limitation in respect to these organs, that is, diminish their power so that their action must become enfeebled and deranged, (diseased action,) either for the purpose of augmenting the force of the recuperative machinery, or for replenishing exhausted reservoirs—withholding power from one organ to aid another in an emergency—the change, with all due caution, will be made and conducted too with great regularity when not improperly interfered with, and the old order of things will be restored again as soon as the end is attained for which the change was made. But when extremity calls for bold and decisive movements, they will be made in any direction and to any extent that the exigency of the case may demand, whatever of suffering or derangement may result from such movement.

It makes no difference in the order pursued in the changes here referred to, whether the end for which

a change is made in the ordinary routine of action is attainable or not, that is, whether the difficulty which is sought to be removed is insurmountable or not. If the heart or any portion of the system essential to life is injured beyond the possibility of recovery, (unless the injury inflicted is immediately fatal, so as to preclude all attempts to repair it,) a recuperative process will be instituted and prosecuted in the same manner as if the case were a curable one, until it comes up to the point of utter failure, where the power is insufficient to move the main wheels on which the motion of all the other machinery connected with them depend.

A very good illustration of the manner in which the general principle of life conducts some of what may be called its primary or cardinal operations, was furnished me by an objector to my views of disease. "Doctor," said Esq. J., "you hold that disease is sanative action—not destructive or mischievous in its nature and tendency—and therefore should not be interfered with; or that, at least, no compulsory means should be used to break it up or change its course. Now I can show you by a very simple illustration that you are wrong. I have a grist mill. It usually goes well and does much and good business. But occasionally I find the miller sitting idle and the mill running very irregularly. At one time there is scarcely a perceptible motion in any part of the machinery, then again it goes with great rapidity. I ask the miller what the difficulty is. 'Oh, nothing,' he says, 'nature wants to recruit herself a little, all will be right again soon.' I make him hoist the gate and let on more water, and immediately the mill is restored to its natural condition."

"I have a few simple inquiries to make of you, Esq. J. Is your miller a faithful, upright, honest man, always devoted to your interest and aiming to do the best he can with the mill?" "Yes," said he, "I never had occasion to distrust his integrity or faithfulness—

he always does the best he can with the mill." "Does he understand his business? Is he well acquainted with the mill—its nature and capability—and does he know how to apply and use the power discreetly and profitably?" "Yes, he understands his business perfectly; there is no one in the country that knows more about a mill than he does, or that can manage one better." "How happens it, then, that he shuts off the water and stops grinding when there is no necessity for it, to the prejudice of your interest, and to the distress and peril of starvation of many families that are depending on the mill for their daily bread."

The objector could give no valid answer. The truth was he had so much confidence in his miller that he never assumed the responsibility of directing him about the use of water. The case put was hypothetical. In respect to his flouring mill, he acts more wisely than he does in regard to the mill of life which is incomparably more important to him. When the latter gets a little out of gear, he sends for a mere botch of a miller or mill-wright to put it in order. The artificial mill can only illustrate diseased action in one respect—when the action of the mill falters from decrease simply in the supply of water, it being shut off, if shut off at all, for no other purpose than accumulation. But under these circumstances a good, careful miller will be provident of his mill power—will close every waste way—and when he finds that the water is too low to be used to advantage, will shut his gate and let the water accumulate until he has a head of power sufficient to warrant the running of the mill.

GENERIC PROXIMATE OCCASION OF DISEASE.

It has been a great desideratum with physicians in all ages since the science of medicine was first studied methodically, to ascertain the proximate causes of dis-

ease, as it was called; namely, that on which disease is immediately based; for it was judged, and judged rightly, that if the *foundation* of disease were known and removed, the disease itself would fall and disappear.

Each class of diseases has been supposed, by most physicians since Cullen's time, to have a proximate cause of its own; so that there must be, according to their ideas of the matter, a number of these causes,—and they have been sought for among the fluids and solids and in an altered state of the vital forces. But no proximate cause of a single form of disease has as yet been ascertained and established on any thing like a satisfactory or permanent basis. It may seem presumptuous in me to assign a reason for disease after such signal failure in a host of able and honest men who have devoted their lives to the pursuit of it.

And yet I venture to do so, and to affirm that *lack of vital energy* is the immediate, generic reason why derangements of any kind are suffered to take place in the human system.

The term *generic* is used to distinguish this general reason or necessity of diseased action from others that frequently operate as occasions of this, which may be called

SPECIFIC PROXIMATE OCCASIONS OF DISEASE.

Of these there are *three kinds*; or rather *three general reasons* may be assigned why there is such a lack of power as to occasion derangement in action.

First Division of the Proximate Causes or Immediate Occasions of Impaired or Diseased Action.

Mere temporary and partial exhaustion of power from too long continued or excessive action.

Second Class of Proximate Occasions of Disease.

CASES.

I. Where the general issues or disbursments continuing unchanged, a different disposition of the power is made among the organs to which it is appropriated; more power being distributed to one organ, to aid it in an emergency, which leaves less for another, and thus occasions a defection in its action.

II. Where the circumstances of the cases are changed; by which more power than usual, and more than the supply, is required to sustain the ordinary operations of life at their common standard; which occasions a general faltering of action.

III. Where local disturbance is produced by the unequal action of disturbing causes upon some portion of the system.

IV. Where some parts are thrown into derangement because they happen to be, at the time of the change of circumstances, in a feeble state, and nearer the point of complaining than other portions of the system. Examples will be given under each of these minor heads.

Third Class of Immediate Reasons why Vital Action deviates from its Natural State, or highest standard of Healthy Action.

An enforcement of the law of limitation; or shuting off of power from the cardinal functions, for repairing or replenishing purposes or both, or from final exhaustion of the living principle.

Of each of the specific proximate occasions of disease there are many varieties.

FIRST DIVISION.

Varieties of this class of specific occasions of dis-

ease consist in *temporary and partial exhaustion of vital energy from excessive action.* These occasional causes of impaired action may or may not be connected with structural derangement and a low state of treasured power—energy in store; but it is intended here to include only the impaired action that results immediately from an expenditure of power beyond the current income of the parts, and which may be superinduced upon a perfect constitution, though more readily upon an imperfect one.

EXAMPLES.

A strong muscular man may hold his arm extended in a horizontal position until the extensor muscles are so exhausted of their power that the arm shall "ache, ready to drop off," as the saying is; and shall indeed actually drop by his side, without ability in the muscles of voluntary motion of the same arm to raise it again, until their power has been somewhat replenished by repose.

A hale young man may go into the ball-room and dance until he shall be affected with strong and distressing spasms of the lower limbs, simply because the muscles of those members have expended so much of their energy that they have not strength enough remaining to maintain steady healthy action. If it is new work, the muscles will tire sooner than in other circumstances; on the contrary, by long use, the law of accommodation would so fit them for this kind of exercise that they would be able to endure it much longer without complaining.

An active, hardy sailor may be thrown upon a plank and be made to buffet the wind and waves until he is reduced to a very low, distressed condition, and, if his life is spared, requires a considerable time to recruit.

The reader can readily call to mind other examples of a tired, weary, painful, faltering state of physical

organs, where an indulgence of the law of repose only is necessary to restore vitality and natural action. Every person who rises early and toils hard "the live long day," knows something of the worth of the gracious provision by a wise and kind Providence for restoring vigor by a good night's repose.

Some may contend that the instances of impaired health given here are ony tired states of the system, or parts of it; and do not amount to *disease*. All impaired or diseased action, of every description, general and local, severe and mild, is but a tired state of organs. In this respect all species of defective action partake of the same general character. They all depend on the same proximate occasion for their existence; namely, want of power in the parts concerned to raise their action to the natural standard and maintain it there.

Furthermore, the producing cause of the variety of impaired action or tired state now under consideration, (to wit, undue exercise,) may be carried so far, and produce so much and long continued exhaustion of the vital forces, as to involve functions in defective action that would soon induce a state of the body that all would admit was a diseased one. But yet there is one point in which there is a great difference between the condition of an organ that has been reduced to diseased action or faltering, tired state, by exhaustion from mere excessive exersise, and the condition of the same organ reduced to a tired state from exhaustion of power by stimulants or poisons, which, while they excite to excessive action, inflict a wound on the texture or substance of the organ: for it is by a goading, pricking, wounding process that irritants excite the action that lays a foundation for disease. This property or quality in the action of irritants will be noticed more at large in section fifth, on the examination of the *causes* of disease and their mode of operation; but the fact that stimulants, in their action on living physical or-

gans, leave a sting behind, cannot be too deeply impressed on every mind.

A man may weaken and injure his hands—reduce them to a painful, complaining point by severe and protracted exercise in pulling flax, when there is nothing in or about the flax to gall them—but if, in addition to the exhausting exercise, they were to be pricked and scratched with thistles and briars mingled with the flax, their case would be greatly aggravated.

Second Division of Specific Proximate Occasions of Disease.

I. When, at the time, there is little or no change in the general issues of power from the depositories, but a change in the distribution of it,—granting more to some parts that have additional burdens imposed upon them, and consequently leaving other parts so much deficient as to occasion a deviation in their action from the natural standard.

II. When, (the power expended on the whole system continuing the same,) under a change of circumstances, all the ordinary operations are checked.

III. When the changes bear more heavily on some parts than on others, and impair their action only.

IV. When some parts are weaker than others, and on this account flag sooner when overtaken by an unfavorable change of circumstances.

The first division of these varieties of occasional causes—diversion of power—consists in internal changes; the other three arise from external changes.

Examples under the First Division.

The first I will give from my own personal experience—an experience that has led me to be more thorough in my investigation of the nature and causes of disease than I probably otherwise should have been.

I possess, by inheritance from my maternal ancestry, a strong predisposition to tubercular consumption of the lungs. From my earliest remembrance, I have been troubled with catarrhal affection and hacking cough; and in former years was much subject to bronchial and thoracic disturbance, such as quinsies and pleurisies; and with common pains of the chest, such as pain in the breast and stich in the side, I was very familiar. These difficulties would be the hardest upon me at changes in external circumstances, such as changes of weather, exposures to storms and night air, want of rest, &c. But as my object at this time is to illustrate a particular point in disease, I will confine my remarks to that.

When the general energies were low, my hereditary difficulties were of course the most troublesome. At such times, when the wheels of life were loaded to the top of their power, just able to maintain comfortable action under favorable circumstances, additional weight imposed on them would occasion some of them to move more tardily, and groan in their movements, for want of the principle of life.

I had also much experimental knowledge of the "digestive fever," of which some notice has been taken in a former part of this section. After a full meal of "good nutritious diet," of fat, "well seasoned" animal food, thoroughly basted with "rich gravies," and finished with a dessert of "choice pastry," I would often experience much vascular disturbance. The pulse would be increased from five to ten and even fifteen beats a minute; heat of the hands and body elevated a number of degrees; face flushed, resembling a cider toper's; with constant inclination to hack and cough, accompanied with sharp, cutting pain in the side, breast or shoulder.

With Richerand and others, I supposed this febrile state of the system was the result of a happy provision in nature to meet the exigency with which it was con-

nected;—that the indiscretion of eating a little too much, (for I had no idea that I was taking any thing into the stomach that ought not to go there, if the *quantity* was rightly timed and graduated,) had only to quicken the action of the forcing "pump" of life, diffuse more energy abroad among the vital machinery and augment its action, and all difficulty would be surmounted, and on the whole no injury sustained. But my views of the whole matter have been thoroughly metamorphosed, and I should now account for the fever in the following manner.

Before the stomach was so inhumanly loaded, (yet not *inhumanly*, for no other animals than men, or such as have been *humanly* depraved, would so load their stomachs,) the vital energy distributed to the different departments of labor was but just sufficient to keep them all in a tolerably steady onward movement. After the stomach was charged with so much foreign, indigestible matter, along with some that was digestible, the nature, quantity and importance of the work to be done by the nutritive apparatus created a necessity for much additional power to that department of service;—a draught was accordingly made out, presented at the fountain head of power, and duly honored. By this means other parts of the system that were dependent on the same source of supply, (so far, at least, as the *general* distributing fund was concerned) and had not private funds of their own on hand sufficient for the emergency, were left to suffer and hang out their tokens of distress, until the nutritive process was so far advanced that a portion of the reinforcement could be spared, when such portion was re-appropriated to the parts from which it had been withheld, and so on, portion after portion, until the balance was restored, and the action of those parts raised again to its previous level.

I suffered much, for many years, in fall and winter, with a peculiar kind of distress in my chest, unable

for a great while to ascertain its nature, cause or cure. I know not how to describe it better than by saying it appeared like a soreness and pungent pain diverging from the center to every part of the surface of the chest, as if a large boil or plegmonous sore had its seat in the center of the lungs, and sent out its tender fibrils to the breast, sides, back and shoulder. It was a nocturnal visitor; and, in the form here described, only such. It would wake me from my sleep, and drive me frequently from my bed. When severe it was in vain that I shifted from side to side to quiet it,—I might "change the place, but keep the pain." Nothing but getting up and walking about or taking something into the stomach would afford relief. My apprehensions concerning it were that the distress arose from an inflamed state of the lungs and their appendices. For I then supposed, and still suppose, that my lungs were studded with tubercles; and my impression was that these were in a sub-acute inflammatory state, and that the inflammatory action extended to the linings of the lungs, which would account for the stringent pain and soreness. The least motion of the chest would send a darting pain across from side to side, as if tender inflamed chords were drawn tightly from one side to the other. But during these seasons my flesh held on and rather increased; for in that flesh-eating period of my life my usual weight, in the winter season, was about two hundred—falling off somewhat in the summer. This fact, together with a full face and rather flushed countenance, were sufficient to allay the fear of being "just gone with consumption," and also to save me from an undue and injurious sympathy from friends.

From some peculiar circumstances I was led at length to suspect that these distressed turns arose from a "stomach difficulty;" and I found, from careful observation made for the purpose, that minced pie would invariably procure for me one of these seasons

of distress. If I took a piece in the morning, or any time during the day, I would be sure to have a hard spell of it at night. True, I was not anxious or careful to make many trials of the pie after discovering that it had been at least one of the causes of much exquisite suffering.

I had, however, some "hard touches" of the same thing after giving up minced pies, and found that sausages were the cause of them. But after abandoning the use of spices of every description, as I did soon after making the discovery just referred to, my troubles of the kind above stated were at an end, though I still continued the use of flesh meats for a number of years afterwards, and was more or less conversant with the "digestive fever."

Here was diseased action from diversion of power. As the effort required to digest and dispose of the vile compound was great, it was postponed or protracted till the season of repose, that some of the forces before on duty in other departments, and especially the muscles of voluntary motion, could be spared and detached to the aid of the digestive forces. And with all the succor thus obtained, it was still nesessary to make so heavy a draught upon the forces appropriately belonging to other organs in the neighborhood of the stomach, as to be the occasion of impaired action and painful condition. It is probable that the horizontal position of the body had some agency in the aggravation of the distress, by bringing the acrid matter that was floating in the stomach to the cardiac, or upper portion of that organ, where the nerves at the time were more sensitive. Physicians in general are probably little aware for how much of their practice, especially their nocturnal visits in cold, stormy, wintry weather, they are indebted to minced pie.

CRITICAL PERIODS.

In the passage from "the cradle to the grave," if extended far into manhood, there are many important points or corners to be passed. There are internal changes to be wrought—new developments to be made—or partial incomplete ones to be finished. These are called critical periods; and such, in very deed, they often prove in the present state of debased and depressed humanity. These periods cannot be passed without an outlay of power additional to the previous current expenditure, except by breaking in upon the established order of distribution, and thereby crippling some of the present movements—so that when one of these corners is arrived at, and there are no available funds beyond the present income, there are but three courses that can be pursued.

First, make a diversion of power, and commence and prosecute the new work, though it be at the expense of some of the present laborers; or,

Secondly, postpone making the developments or changes that are called for, and continue the present order of things; or,

Thirdly, "block the wheels," and stop the whole machine.

Nature prefers the first course, and always takes and pursues it to accomplishment, as circumstances warrant, or till the difficulties are proved to be insurmountable, through failure of resources, or too strong opposition.

Two or three examples of passing these periods will suffice for further illustration of the proximate occasion of disease through diversion of power. And first,

Teething of Infants is a prominent instance of one of these corners that requires additional power for passing. While strong, healthy children pass through this period of life with perfect ease, others suffer in

all proportions from slight inconvenience to extinction of life. When there is power sufficient only to maintain the ordinary degree of action in the functions that are already in operation, no new appropriation can be made without occasioning disturbance of some of those functions. Teeth cannot be produced without power. Whatever quantity of it therefore, is drawn for this purpose, from the general stock of that circle or class of organs that have in charge the production and maintenance of teeth, will detract so much from the ordinary appropriations, and leave a proportional deficiency in the sustaining energy of the organs, from which the power has been withheld, and the action of such organs will be impaired to the same extent. Hence the disturbed state of the bowels, loss of appetite, febrile action and sometimes fits, or various other derangements which many children experience in passing through these critical periods of their lives. It is the best that can be done under the circumstances, and mothers should learn "therewith to be content," on giving such additional care and attention in nursing as the nature of the case in hand demands; in which she may often derive important benefit from the counsel of an experienced and judicious physician. But let her by no means attempt to "counteract the living principle." When the dental process is carried so far that but little power is required to guard and sustain it, the balance will flow back in its accustomed channels, and restore action, where it had been depressed.

Various other causes may unite, and conspire with the critical period to render teething more difficult, such as the season of the year, state of the weather, condition of the atmosphere—as being in a crowded city, or ill-ventilated room—weaning of the child, error in diet, clothing, &c., which would need attention. With the precautions suggested in the above remarks, there is no danger in leaving mother Nature

to manage these cases in her own way; for if the safety of the child requires it, the diversion of power for teeth-making will be desisted from, and that operation postponed till power can be taken for the purpose without hazarding the life of the child.

In passing the period of puberty, there is often much default of action, and consequent suffering, through lack of sustaining energy, in the youth of both sexes, but more especially in females, because the customs of society bear more heavily and disastrously on the vital operations of the weaker vessels, and bring them oftener within the circle of complaining. These derangements are to be accounted for as above; and the caution against interference with nature's work, which was given respecting teething, is applicable here.

Again, it is well known that many women suffer much in the period of utero gestation. These sufferings are occasioned by a diversion of power for an important object. In these cases, however well formed, strong and active the individuals may be in other respects, or at other similar periods, there is now a deficiency of power within the circle or class of suffering parts; but what power there is, is well appropriated, each part has its full share according to the relative importance of the work devolving upon it.

It is in vain to attempt to alter this state of things, otherwise than by making all the circumstances under which the present action is conducted, as favorable for that action as they can be made. It would be to no good purpose to break down or weaken the strong parts, for although they can not be made to contribute *directly* to the suffering parts, they will not oppress or in any wise injure them, and indirectly do them much good with their superior strength. It may seem unkind in those to whose professional care these cases are entrusted to stand by and use no active means to relieve the distressed, but no one who has carefully

watched the undisturbed movements of nature, and marked the results, can doubt but that the temporary sufferings of the individuals, however great they may be, are fully compensated by the benefits that accrue as the indirect consequence of those sufferings; and let me add, and I do it advisedly, from much experience and observation, that *maternal* life is not hazarded by the new appropriation of power, which lays the foundation of the sufferings, or derangements; for sooner than peril that life, she will remand the forces, and risk the consequences that may flow in another direction. I introduce this class of occasional causes of defective action, not so much for illustration, as for the purpose of improving the occasion to enter my protest against the common practice of blood-letting in these cases. This remedy is resorted to because it proves more universally and unfailingly a source of present relief than any other, and it is from its power to do evil that it gives relief, and thus appears to do good. The sudden abstraction of a quantity of the pabulum of life, which has been prepared at a great expense of care and toil, and is being circulated through every department of labor for the use and sustenance of the millions of nature's industrious workmen, operates as an alarm, plays upon the law of stimulation, summons all hands to their posts, recalls the detachments, or a portion of them, that have been sent out on a new expedition; and thus while they guard and strengthen the parent stock, (which by the by was not before in danger, for had it been the detachments would have been recalled, or detained on that account,) the young sprout, on which, if destined to descend through other sprouts to distant generations, so much depends, must languish, and sustain an irreparable injury. Other means that are much employed for procuring relief in these cases, are injurious, particularly anodynes, but bleeding exceeds them all in its destructive tendency. An ex-

tensive practice in this department of professional service, in which for more than twenty years I made no use of the lancet, nor of any means for reversing or counteracting the natural operations of the law of life, gives me some warrant, as I think, to speak out on this subject. There are physicians, who have been conversant with more of the kind of practice here alluded to than I have, but I know of no one that has had the *kind* of experience that I have, therefore their testimony is not entitled to the weight that it otherwise would be. Of all the cases that fell under my care, and were treated on the "let alone" plan, not a solitary one resulted disastrously, though many of them were, at some periods of their progress, exceedingly distressing, and, to an inexperienced observer, alarming in their aspect. I will state one case.

Mrs. J. B., after suffering the most agonizing distress of various kinds for more than forty-eight hours, fell into a profound lethargic state, very much resembling what is sometimes witnessed in the last stage of typhus fever, attended with coldness of the extremities. While in this state, Dr. J., who was providentially passing by, was called in to see her, in my absence from the village, and pronounced the case a hopeless one. On my return and visiting the patient, Mr. B. met me at the door, and with a woful countenance exclaimed, "Doctor, you have told me all along that my wife was not dangerous, and Doct. J. has just seen her, and says she can't live." To which I replied, "Doct. J. does not know so much about this case as I do. Your wife will live and yet do well." The next day the friends of the patient were all at ease concerning her, and the case ended well in every respect.

Much of the time, during the period of Mrs. B.'s greatest sufferings, she was in distressing spasms, requiring a number of women to manage her; and under

an impression that I was directing my efforts mainly to prevent a miscarriage, (for by a display and use of pills, powders, drops, &c., a feint was kept up of doing something,) they besought me in great earnestness to desist from my purpose, and do what I could to save the woman, and if it was necessary to lop off the branch to save the parent stem, to do that. But in accordance with my conviction that by leaving the economy of life to manage her own concerns, in her own way, without let or hindrance, the life and welfare of each and both would be the most effectually consulted, that course was undeviatingly pursued.

Lastly, under the present head, the parturient pains of women, than which erring mortals are seldom if ever called to experience more exquisite physical suffering, affords another example of diseased or impaired state, from diversion of power. The pain in these cases is not in the laboring organ, for the action of that is kept above the point of pain, but it is done at the expense of its poor neighbors. In a perfect state of the human system, such a deplorable necessity of suffering one portion of the system to fall into dire distress, in order that another portion may be enabled to perform its function, will not exist, there will then be energy enough to meet every emergency, and there will "be nothing to hurt or destroy."

Second, Third, and Fourth Varieties of the Second Species of Occasional Causes of Disease.

These varieties consist in a change of external circumstances, such as the changes of the seasons, of weather, of dress, &c. These changes, especially if they are made suddenly, make it more difficult for feeble organs to perform their regular round of duties, and thereby create a necessity for additional forces, to prevent a dropping down in their action, and where such additional forces can not be spared for the pur-

pose, there must be a faltering of action until the necessary aid can be furnished, or the pressure of circumstances taken off. These occasional causes may be trivial, occasioning but little derangement, or they may be sufficient to destroy life.

If the different parts of the system sustain a symmetrical or equal proportion to each other in their capability of endurance, and the overbearing pressure operates equally on all parts, there will be a universal depression of action, or if the sustaining capability be equal, and the pressure operate unequally, the parts most under the pressure will be the first to flag. But as it is seldom if ever the case, in the present degenerate state of the human system, that such equality of parts exists, the pressure will generally, if not always, occasion local disturbances, affect the action of some parts more than that of others, and such parts in proportion to the inability to meet the unfavorable change. For example, let ten persons be exposed in a storm or change of weather sufficient to affect them all, under precisely similar external circumstances, and they will be differently affected; one may have a common cold, another pain in the head, face, or teeth, another rheumatism, another fever, and so on.

EXAMPLES.

J. I., a lad about twelve years of age, receives a violent contusion on the shin, or fore part of the leg just above the ankle, by the whirling and falling of a heavy cart-wheel, which he is attempting to roll a short distance. The part is deeply bruised, and pain at the time excruciating. In a few days however, it appears sound and well. Six weeks after the accident, on a pleasant day early in April, the lad wades in a brook an hour or two, with other boys, in catching eels; the same evening, he has a chill, followed by high feverish excitement, a deep, heavy,

throbbing pain in the previously injured part of the leg; an extensive suppuration takes place, baring the bone three inches in length on its anterior surface, making a sore that is a number of months in healing.

A. B., another lad eight years old, receives a blow in the head from a stone thrown by another lad. In three or four days he appears entirely recovered from the effects of the blow: a few days after is out in a storm, plays in the water, and a week therefrom dies from an affection of the head.

How common it is for women under particular circumstances, from just having their hands in cold water a few moments, or being otherwise exposed to some slight change of temperature, to suffer severely days and weeks, and sometimes months, from a swelled and suppurated breast.

In these and similar cases, the parts liable to be brought into a complaining state. or reduced to diseased action, are in a feeble, defenseless condition; their sources of power, for the present, nearly exhausted; the forces have been worn down by fatigue duty, and need repose. A little care and time will place them again on vantage ground, where they will be in no more danger of defection, than their now more fortunate neighbors.

I would here remark that these *occasional* causes of disease should not be confounded with what are appropriately called *noxious* causes, that is, causes the tendency of whose action is only to injure, both in a sound and unsound state of the system. There is no evidence that the vicissitudes of the seasons and weather are on the whole prejudicial to sound constitutions; nay, it may be, and probably is, indispensable to the promotion and establishment of perfect constitutions, that there should be just such changes of the seasons and weather as are experienced, notwithstanding that there is now so much distress and devastation occasioned by them: just as the

furious blasts that only serve to make the sturdy oak strike its roots the deeper, and spread out its branches the wider, writhe and scatter to the four winds the tender willow growing by its side.

Third and Last Species of the Proximate Occasions of Disease.—An Enforcement of the Law of Limitation, or Shutting off of Power from the Cardinal Functions, for Repairing and Replenishing Purposes, and a Final Exhaustion of the Vital Principle.

The varieties of this species of proximate occasions of disease, or immediate reasons for instituting repairing and replenishing processes, are endless, and no attempt will be made to divide or classify them, but two or three examples given to illustrate the general operations of nature, in her efforts to restore her damaged machine, and charge it anew with the "impetum faciens" of Boerhaave, or vital energy.

EXAMPLE FIRST.

A tetotal reforming inebriate, one who is thoroughly breaking up from the lowest foundations a long and deep-rooted habit of intemperance, furnishes a good general example of defective or changed action, from the shutting off of power for the prosecution of a work of repair. As these cases are unfortunately, and yet very fortunately, common about the country, most persons of observation have an opportunity of witnessing something of the change that is wrought in their physical system. This change is much greater and more apparent in some individuals of this class than others. For our present purpose we will take one of the worst cases, one too whose work of reformation was thoroughly done up.

A. H. R., possessing naturally a good constitution, handsome form and fine face, through the deforming influence of alcohol presents a most forbidding and loathsome spectacle, bloated, ulcerated and debilitated. The blood vessels of the face, naturally minute, delicate and unblushing, have been unequally distended with dark blood, giving the countenance a motley and hideous appearance; the irregular, livid, bloated and indurated surface of the face is indented with rum blossoms, and the whole lighted up in the centre with the true alcoholic blaze; and the face exhibits but a true picture of the important internal organs. Now mark the change. The enemy has left the field, the cause of these terrific evils is abandoned, and nature immediately commences the work of regeneration. The law of limitation takes the place of the law of stimulation; retrenchment is made the order of the day; issues of vital energy through the old channels, or those through which much of the income and most of the old stock had been drawn and expended, are greatly curtailed. All the forces that can now be safely and prudently spared for the purpose, are applied to the eliminating machinery for the removal of the great amount of worn out, effete, and deleterious matter, which has long been accumulating in every part of the body, in consequence of the debility of the absorbents and excernants, whose business it was, while in health and strength, to rid the system of these matters. The immediate effects of these changes are, loss of appetite, paleness, emaciation, prostration of strength, increased frequency of the pulse, and a most distressing, though indescribable sense of sinking, which would drive the man to almost any course to procure present relief, dispense with the law of limitation, and enforce again the law of stimulation, if he had not set his face like a flint the other way. Then follows a long, tedious, and troublesome bilious affection; and subsequently

other organs are brought under repair and thoroughly overhauled, as there is power to push forward the restorative operations; and when the analytical and synthetical parts of the restorative work are finished, the law of limitation still prevails so far as to hold back a portion of the income of power from the muscles of voluntary motion, until all the tissues of the body, with their respective fountian heads, are supplied with the *impetum faciens*. But the final result is a surprising and happy one. The man is physically made over. Defective, useless, or cumbersome matter, solid and fluid, has been removed, and new supplied and charged with vitality, and all the functions put in successful operation. In this renovating process there was much deviation from the natural state, both in appearance and action, involving great suffering; but no *wrong action or wrong condition*, on the part of the economy of life. The wrong in the case lay in the use and action of noxious causes, alcohol and its auxiliaries. The action of these tended directly to the destruction of the body, by wounding and rendering unfit for use certain parts of the system on which they acted chemically or mechanically; the removal of the injured particles, together with the unexpended balance of the noxious agents, was an expensive work, and called for an extra appropriation of power; and so long as the stock on hand would warrant, such appropriations were made, and the solids and fluids kept in a healthy condition;—but when the stock failed or became inadequate, a partial vitiation of the solids and fluids was unavoidable; and while the causes continued, the vitiating process could but increase, for the worse the condition of the system, the more power it required for its management; and thus the exhausting process would have continued until the difficulty of sustaining action exceeded the ability, but for the fortunate and timely cessation of hostilities.

EXAMPLE SECOND.—COLDS, OR CATARRHAL AFFECTIONS.

The most approved and most prevalent theory of colds, makes their proximate cause, or foundation difficulty, to consist in a prolapsed, torpid, inactive state of the perspiratory exhalents; in consequence of which, irritating matters that should have been thrown off through these vessels, are retained in the system, and create the disturbances that attend these affections. This theory assumes that the atony of the extreme vessels has been produced by the sudden action on them of debilitating causes, at an unguarded moment; that this condition of the exhalents is an accidental circumstance, not called for by any previous state of the system, and that the remedy consists in rousing these vessels from their lethargy, when their eliminating functions will be resumed, as if nothing had happened. Hence the common expressions, "I have taken a violent cold," "I have a heavy cold *coming*," "took, or caught a cold;" and persons will generally tell with much precision, when and how they took the *thing*. Now colds are not *taken*, or *caught*, nor do they *come*, they are not *imported*, but are "home made," manufactured within, "by a paulatim, or little by little process." The supposed causes of colds, atmospheric changes, sudden, unguarded exposures, &c., sustain about the same relation to these affections, that hard times do to bankruptcies; one reveals the condition of the capillarics, the other of the pockets. Heavy bankruptcies, however, sometimes occur without any general pressure in money matters, and so do heavy colds sometimes make their appearance without stress of weather, or any unusual exposure. That colds are not accidental changes in the capillary vessels, induced by changes of temperature, but result from judicious and well-directed efforts of the vital economy for renovating purposes, any one may satisfy himself by leaving the

work in the hands of nature, and carefully observing her movements, and noting the results. Other things, such as diet, &c., remaining the same, a fair experiment for a number of years, of the "let alone" treatment, will show an advantage over the "break up" system, in three particulars.

First, colds will be shorter; secondly, they will be more regular in their progress; thirdly, they will leave the system in a better condition, and not return as often. More than thirty years rigid adherence to the course here recommended, in my own person and family, together with the testimony of others, is my warrant for the above assertion. Catarrhal affections, in their nature and tendency, resemble other diseases, and as they are more common, and less dreaded in their termination, they afford an easy and favorable entrance upon a course of experiments for testing the general principle involved in all diseases.

It is only the deep-seated and protracted colds that come fairly under the third species of occasional causes of disease, as resulting from an enforcement of the law of limitation for repairing and replenishing purposes. Slight or short colds, generally have for their proximate occasion, the pressure of external circumstances, such as changes in the temperature of the surrounding medium, in which the body may be at the time, whether from warm to cold, or from cold to warm,—for putting on flannel or woolen dress, after a linen or thinner one, will sometimes bring on a cold. At the time that the change is made, the capillaries that are to be affected by it are reduced to a low extremity in their sustaining funds, and but just able to keep up their action at its usual rate under existing circumstances. Any change, therefore, in these circumstances, that makes it more difficult for them to support the same rate of action, or that shall disturb the present harmony or equilibrium of their action, will cause them to falter and fall in their action below

the common level, while there may be no change in the current receipts of sustaining energy by these vessels.

The original producing *causes* of catarrhal affections—those that break down the energies of the catarrhal tissues, or system of vessels that are the seat of colds, may be the same in every variety of these affections, and there is, also, doubtless, a blending of the proximate occasions, in some cases, partly recuperative, and in part from an aggravation of circumstances. But it is the deliberate and thorough breaking up of old foundations—deep-laid and long-cumulative wrongs inflicted on the most important vital organs—which is now to be considered. These repairing processes may be and sometimes are commenced under the pressure of extrinsic circumstances, but more commonly persons who have heavy colds on them may look in vain for any such excuse to offer for their calamity. The strong upward tendency of vitality, or the patience and long-suffering of nature under the infliction of injuries, is no where more manifest than in the long postponement of these renovating processes. In these cases, as in all others, injuries are repaired as fast and as far as they can be, without enforcing the law of limitation, immediately after their infliction; and the balances of the uncanceled injuries are carried forward to new account, and so reluctant is kind mother Nature to suffer derangement to take place in this cardinal part of the machinery, that these balances are allowed to accumulate without pressing a claim for settlement, "until forbearance ceases to be a virtue." In some constitutions these matters are so adjusted and managed, that during a long life they are never pressed home upon the attention of their proprietors, so that they know nothing by their own experience what these ills mean; some others are but rarely affected with them, two or three times in sixty or

eighty years, and but a small proportion of the mass of mankind have a deep, heavy, protracted cold, oftener than once in from three to eight or ten years, even in civilized society, where with broken down constitutions and perverted stomachs, the procuring causes of colds, are freely indulged in: yea, where high medical authority teaches, both by example and precept, that it is "utter nonsense, the merest quackery, to say to a man that he shall not regard the promptings of nature within him, that he shall go counter to the dictates of appetite." But when it becomes indispensable to the peace, harmony, and future well-being of the social compact, that these deferred claims should be adjusted by due course of law, they will be urged to final settlement with an almost resistless purpose and perseverence. True, a suit may sometimes be postponed for a few days, or even weeks after it has been fairly commenced, by the interposition of a strong bar thrown in by an unwise and injudicious opposing counselor; but such attempts to get rid of pay day are fruitless, to say the least of them.

Perhaps there are no diseases to which the human system is liable, about which greater and more ruinous mistakes are entertained, than in relation to the whole matter of colds. The opinion is almost universal,

First, That instead of their having their foundation in a rotten state of the tissues affected by them —which have long needed a breaking up and working over—they are brought on at once or within a short period, by some imprudence or unfortunate exposure.

Secondly, That instead of the tendency of the action concerned in the affection being to the promotion of health and prolongation of life—the salvation of important organs from pending bankruptcy and ruin—the action is tending to the destruction of life; and

that, in many cases at least, if it is not broken up seasonably, it will "seize and fasten upon the vitals," beyond the possibility of removal, and plunge the individuals into fatal consumption. And,

Thirdly, That if taken in season they are curable, may be broken up in a short time, or very much shortened in their course; whereas the fact is, that all opposition but aggravates and protracts the cure.

Most persons of mature age not only believe in the curability of colds, but have each a favorite infallible remedy or method for curing them.

"I can cure any cold in twenty-four hours," said a blustering Thompsonian doctor. A few months afterwards, he wanted to know what was good for a cold, he had "taken a terrible one." Physicians that have been in practise a few years, generally exercise a good degree of modesty in regard to their claims to infallibility in the cure of colds, or any other disorder of the human system, but young physicians are full of their "break-up" notions.

Soon after commencing a settled systematic warfare upon the laws and operations of human life, under the authority of the state of Connecticut, I had the misfortune to be "attacked" and invaded in my own person, by "a violent cold." After a few ineffectual attempts to dislodge the enemy by slight skirmishing, I resolved on mustering some of my heavy artillery, and taking him by storm. In a short time, to all appearance, the coast was clear, and I was highly complimented by the family with which I was boarding, for my skill in managing colds; to which I replied in substance, that if I had not medical prowess sufficient to make a cold succumb, I would give up the ship. But,

> "Ah, luckless speech and bootless boast,
> For which *I* paid full dear."

In a few days the enemy showed a bold front again,

and so impregnably had he fortified himself, that all the assaults which I dared to make produced no serious or lasting impression upon him; and I put in requisition my choicest troops, marshaled in a variety of forms, and urged repeatedly to the onset with every degree of warrantable force, according to the most approved tactics of the day, for it was no little mortification to my professional pride to go barking about the streets with a paltry cold, carrying at the same time a license in my pocket to cure all manner of diseases, and especially after I had so recently played the braggadocio.

With what astonishment do I now look back upon such more than Don Quixotte folly and madness. Had I, in a fit of knight-errantry, madly attacked a furious, clattering wind-mill, and come off with a sound drubbing, it would have been a wise and meritorious act, in comparison with that in which I was engaged, attempting with deadly, hostile weapons, to compel the vital power to desist from a lawful, well-timed, necessary, and healthful operation. Since I abandoned the idea and the practice of trying to take the helm out of nature's hand, and steer the ship myself, or compel her to keep the ship before the wind at all hazards, I have had much opportunity of witnessing the two methods of treating colds, to wit, letting them alone, and fighting them. The result has strengthened my conviction that diseased action is right action. Most colds, as well as most other common, every day derangements, will be ephemeral, short-lived, under almost any treatment. If there is no necessity for a long disease—a long renovating process—the vital forces cannot be driven into one. They may be injured, enfeebled, destroyed, but they can not be made to exhibit, for example, the phenomena of small pox, without the previous action of small-pox virus on the system, nor of yellow fever, unless the specific causes of yellow fever have previously laid a foundation for

it; no more can they be made to exhibit the phenomena of a deep, thorough, protracted breast cold, when a long train of the legitimate action of irritants on the capillaries of the system, and particularly those of the lungs, and their appendices, has not previously made such a manifestation necessary. And when one of these renovating processes has been perfected, all the instruments of motion thoroughly refitted for their work, and well supplied with motory power, they can not be driven again through the same train of diseased action, till a new foundation is laid for it. A man of good constitution, who has been recently perfectly "cured" of, or rather *by* a long, heavy cold, is therefore in no more danger of having another one soon, let his exposures be what they may, than he is of having the small-pox, when he has not been under the influence of small-pox contagion. He may be exposed to changes of temperature, in form and severity sufficient to break down his system, but he will be likely to have almost any other form of disease, or impaired action than a cold.

I have now in my mind's eye a number of men, in the prime and meridian of life, who have respectively at different periods within the last four years, had the catarrhal departments of their physical corporations thoroughly overhauled, repaired, and fitted up in ample order, and restocked with energy. They were each a number of months under the painful and unwelcome process; one in particular, a strong, muscular man, who was more immediately under my observation than the others, had "a violent cold upon him" during most of the winter of 1842—3, and tried a variety of means to "break it up" and "throw it off." Some of his friends were apprehensive that "it would throw him into a consumption," not aware that its tendency was to "throw him" directly the other way. These men will now enjoy for a considerable period, an immunity from such terrible retributions; it will take

them a number of years, with a diligent use of well adapted means, to break down the renovated organs and energies to a point that will compel these vigilant, active, and devoted servants of theirs, to re-inflict upon them so severe a penalty for the transgression of the laws of health. Some individuals inherit a strong catarrhal diathesis, and by fostering this disposition it becomes habitual, and very slight causes acting directly upon the catarrhal tissues, will reduce them to a complaining point; they are born in a substratum of colds and coughs, and without special care to improve this constitutional defect, in it they will "travel all their days, to reap" consumption.

EXAMPLE THIRD.

The following extreme case is offered in support of the position that the vital economy guards with especial care the citadel of life; and yet, that when an important end can be answered by a concentration of all the otherwise disposable force upon the recuperative machinery, where their operations lie beyond the field of human ken; or by holding them back from all service, locking them up for a short season to augment their power for the compassing of an important object;—such disposition will be made of the forces, under the safe-keeping restriction.

Croup. Subject, Theodore Weld, infant son of Mr. R. E. Gillett, Oberlin, Ohio. The case occurred in the fall of 1841, when the child was about one year old.

The disease was of more than ordinary length for croup, which was of unmixed and inflammatory character; but being left free to pursue its own course, was regular throughout, by paroxysms, both in its rise and decline.

For a number of hours previous to the critical or turning point, for the special purpose of noticing which

the case is here introduced, the life of the child was mostly despaired of by the parents and friends; a clergyman had been called in, and the rite of baptism performed. The muscular strength was much reduced, and the powers of life were apparently near complete and final exhaustion; the effort at coughing and catching for breath grew fainter and fainter, till all seemed hushed and quiet in death. Presently, however, we perceived a little heaving of the chest, and breathing recommenced, feebly at first, but increasing in strength. An effort was made at coughing, which brought within reach of extraction a quantity of tough, viscid phlegm, followed by a freer respiration and general improvement of symptoms, which inspired us with the hope that the crisis was past. But in two or three hours these hopes were blasted by another decline and apparent death scene, which continued a little longer than the first. Again the child revived, and for two or three hours more gave some promise of life, when it sunk the third time, and for a longer period than before. Once more it breathed, and from that time there was an upward and onward movement to established health, since which it has been a bright, active, little boy, enjoying uniform good health, with the exception of having the whooping cough and measles, through which it passed with ease, and without any special effort to help nature.

The course pursued in this case was new in this section of country. The parents of the child were well established in the new doctrine and treatment of disease, and stood firm and unshaken through the trial; but some friends present on the occasion, were much concerned and distressed in view of the cruel aspect of things. To leave a poor, helpless babe, to struggle alone "in its nurse's arms," with the grim monster disease, seemed to them almost unpardonable. "Why," said they, "the difficulty consists in a bladder

in the throat, a false membrane, produced by the drying and thickening of lymph—a sizy portion of the blood exuded from the mucus membrane, the inner, lining coat of the wind-pipe—and unless means are used to break up and remove that adventitious membrane, which obstructs the air passage, the child can no more live than if it were under water, or had a ligature drawn tight around its neck." Very plausible, on the wrong action theory, which views the movements and changes in disease in a belligerent aspect; but the "let alone" treatment adopted and pursued in this case, was dictated by the right action theory. The lax, congested state of the bronchial vessels, the exudation and inspissation of lymph, occasioning difficult breathing, &c., were evils, sore evils, but they were a choice of evils. The ship of life, from the operation of causes beyond the control of the master and the crew, was in a perilous conditon on a lee rock-girt coast, and the only safe alternative was to "Bout ship," "Weather the point," and get to sea. There was no danger in the maneuvering; the confusion on board, created by the sudden turnings of the ship, thrashing of the sails and spars was inconvenient and unpleasant to the passengers, but the danger was in being wrecked upon the rocks; the object and tendency of the maneuvering were to prevent this, and if there was a possibility of escape, under the circumstances of the case, the combined skill and power of the whole ship's company was pledged to effect it, and never were they exerted with more untiring and vigilant circumspection. And what spectacle could be more imposing, though mixed with much painful solicitude, than to see the noble vessel, freighted with an immortal mind, brought three successive times, with the utmost regularity and precision, so "close haul upon the wind," as to look and run it directly in the eye, and yet "up helm" and gently "bear away" in season to prevent a fatal "luff-

ing to," till at length the narrow defile is past, or the extreme point of rock weathered, and the gallant young ship riding majestically before the wind again, with all her canvass spread, in an open sea. In this view of the case, what temerity it would have been in me to lay violent hands upon the captain, and attempt to compel him to put his ship before the wind, and make smooth water of it, while the breakers were foaming and dashing among the ledges at a short distance under his lee! But, figure aside, at the extreme point of deviation from the natural state, when vitality was to human appearance extinct, there was no danger to be apprehended from the *symptoms*—from the condition in which the instruments of motion were held. The only question in regard to the safety of the child was, is there power enough in the system, under existing circumstances, to meet the exigency of the case, to surmount the difficulty, whatever that may be, which lies in the way of the vital forces, and for the removal or correction of which they have turned aside from their natural course. The same law or governing principle which controlled the power, (on which life or health and all vital action depends,) a week or an hour previous to the commencement of the disease or impaired action, when the child to all appearance was in good health, controlled it still; and the stimulus of stern necessity, or principle of obedience to fixed and healthful law, from which it cannot swerve, would certainly secure such a disposal of it, as was best adapted to prolong life. When physicians succeed in procuring temporary relief in croup a little sooner than it would otherwise be afforded by a natural operation without such interference, it is not by doing the work themselves, nor by *helping* nature to do it. Calomel, tartar-emetic, squills, topical bleeding, blistering, &c., possess no power, alone or adjunctively with the economy of life, to sustain vital action. Nothing but the vis vitæ

itself can do this. It is therefore only by playing upon the law of stimulation, and compelling, for the time, a partial restoration of the power to the feeble organs, that the action is raised, and relief obtained, and when they fail of reaching and drawing forth power by a stimulating process, they fail to procure relief; and in either event the compulsory interference is a "counteraction of the living principle," which only results in a protraction of the cure, and augmentation of danger. Facts are my vouchers for the correctness of this theory. In the whole course of my professional services, or attendance upon the sick, the number of cases of croup treated by me on the no interference system, exceeds those which I treated on the opposition plan. Of the former I lost none; of the latter, two. The case detailed above, was the most threatening of any one managed in accordance with my present views;—taken together, I have no hesitation in saying that the cases in which the operations of nature were not interfered with, were shorter and milder than those that were subjected to medical interposition. Two cases of about medium violence, occurred at the same time. On the night of the 25th of December, 1838, about one o'clock, I was called into the family of Mr. Abel Smith, of Derby, Conn., to see Susan Finley. The little girl had attended Christmas eve in the neighborhood, and returned home somewhat indisposed from a cold, as the family thought, but soon showed symptoms of croup, in the shrill, barking cough, flushed face, anxious countenance, and difficult breathing. After giving some general directions for the management of the case, I returned home, and met at my door a messenger requesting me to go in haste to L. Osborn's, Esq., to see Grace Tomlinson, young niece of Mrs. Tomlinson, whom I found struggling under a pretty severe recuperative process called croup. Gave directions, returned home, slept quietly till morning, (which I could

not have done with my old views of disease,) and then revisited my young patients, and found them quite comfortable.

I would not be understood to hold the opinion that no children would die with the croup if treated properly. Far from it. I believe that for some generations yet to come, there will be deaths in infancy and childhood, occurring under every form of disease, diminishing, however, in frequency, until the appointed time comes, when "There shall be no more thence an infant of days."

HEREDITARY DISEASES.

It is well known that some families are specially subject to lung consumptions, others to gouty or rheumatic diseases, and others again to sick headache, or some particular affection which is more common to those families respectively than to others, and that this liability is traceable in such families from one generation to another, and sometimes in a long line. I am acquainted with a remarkable instance of hereditary predisposition to insanity in the families or blood kin of a particular name; which descends lineally from father to son, and ramifies, as the families branch off, among first, second, third, &c. cousins. These hereditary affections have their producing causes and proximate occasions in common with all diseases. The object in introducing them to the notice of the reader is simply to point out to him the manner of their transmission to posterity, and safe keeping and perpetuation in the individuals and families to and through which they descend. The predisposing diathesis, or defective state of body on which they are reared, is transmitted to posterity by a law of propagation, or principle which secures the impress of the parent upon the offspring, which is well known but not sufficiently regarded. But

the manner in which the predisposition is kept in being, and quickened into life, against the counteracting influence of the law of equilibrium, which tends strongly to remove defects, and elevate every part of the system beyond the reach of depressing influences, is not so well understood. As a preliminary step to such an understanding, it is essential to know and keep in mind the fact that the different departments of labor in the human system are independent of each other in their sources of power, that they are not supported on the common stock principle, and that no organ, whatever may be its ability or disposition, can send aid to another, either backwards, forwards, or sideways. The only source of aid to an individual organ or to a circle of organs, (for in some cases a number are grouped together, and have *their* power in common,) beyond its own resources, is the general depository, and when this is drained, it has no other than its own. When, therefore, any part of the system is seriously crippled, no matter when or how it was done, there will be danger, from present views of disease, and of the effects of remedial agents, and of diet, of its being perpetuated by an abuse of the law of stimulation. If any variety of the specific occasions of disease bring the crippled organ down to a complaining point, this being construed into a spirit or state of rebellion, means are at once sought out and applied to quell the supposed rebellion;—and it so happens, that the means or weapons, and those only, that are hostile to the part, are adapted to produce a temporary quietus, or delusive repose;—and those that possess the greatest power to injure, also possess, as a general rule, the highest faculty of *making believe* that they do the most good;—and what is truly wonderful, and well calculated to deceive, is that while they are artfully and smoothly covering over an old wound, with most consummate skill they inflict a new one on the same parts, and deeper, than the one which

they have apparently healed. This delusion should be well understood, and for a plainer exposition of it, we will take a familiar example, a hereditary sick headache. Narcotics are its producing cause; tea is the queen of narcotics, and green tea the queen of teas. Now when the sensibility of the defective parts can no longer be kept out of the "blues," by ordinary teas, or at their ordinary strength, a cup of very strong green tea will generally elevate the sensibility and dispel the blues; but while, with its well tempered, etherial blade, it cuts its way into the repository of power, and gives free egress to the retained and accumulating energies, and thus raises the dejected sensibility above the complaining point, and even sets it on tip-toe; by that very act it lays a broader and deeper foundation for a recurrence, in an aggravated degree, of the same kind of sufferings as those which it now removes with so much apparent kindness. If tea drinkers complain that the charge here made against their favorite beverage is libellous, and claim that the temporary cure of a sick head ache, (for this is the most that can be made of it,) by a concentration of the wonder-working remedy, is not performed by a poisonous operation, but is accomplished in a truly sanative style, by some secret art or device, which no one has had the good fortune yet to discover, and which, perchance, may act in some way analogous to the spirit of necromancy which Brandrèth and other nostrum mongers infuse into their potent remedies, we will take another example, a case in which *opium* has laid a foundation for periodical sufferings. The poisonous nature of this drug is undisputed and indisputable; and of all the physical distress which it has been my lot to witness, few cases have exceeded some turns of periodical sufferings that have fallen under my notice and care, in opium eaters, and which nothing would palliate but redoubled doses of opium, so that this poisonous drug was most manifestly both

"cause and cure." Now if the palliative operation of this most powerful agent can be accounted for on any other principle than the one just explained, we are ignorant of it, and if this be the true principle on which agents of this kind act in affording present relief from suffering, then we need look no further for the reason why local disabilities, imperfections or defects, are perpetuated in the same individuals and often handed down to distant generations. Indeed, were it not for the restorative principle of life, which is incessantly and untiringly at work to counteract the ruinous tendency of man's own suicidal acts, many families and communities, with their present mode of living, would soon become extinct.

SECTION IV.

ANALYSIS OF SOME OF THE MOST PROMINENT PHENOMENA OR SYMPTOMS OF DISEASE.

It will be my object, more especially, in this section, to show that the settled deviation of action in the human system from the natural state, while the body is at rest, or that deranged action, that would be called morbid or diseased action, has its foundation in deficiency of vital power.

By "natural state" I mean the ordinary standard of health for any given individual. By "deficiency of power" is meant a want of force to prevent derangement under present circumstances, whether the force be more or less than the same parts possess at any other time.

Before proceeding to the proposed analysis I will give a few marks of good health, which may serve in some measure as a guide to our inquiries.

First mark—Slow pulse; firm, steady and uniform in its beat, not easily disturbed, and, when thrown from its balance by the operation of powerful disturbing causes, soon recovers it again when those causes cease to affect it, unless an overpowering injury has been inflicted upon parts concerned in this action.

Second mark—Slow and firm respiration—not easily hurried or perturbed by running, ascending a hill or flight of stairs, emotions of the mind, &c.

Third mark—A steady, equal and uniform temperature of the body, and comparatively cool state of the skin, maintained at the same points under great changes in external circumstances, such as vicissitudes of the seasons, change of weather or climate, or temperature of rooms, in exercise or at rest.

Fourth mark—Great muscular force subject to the

will in the muscles of voluntary motion, and, in the involuntary muscles, to the functions of the parts to which they belong.

Fifth mark—A prompt, energetic and concurrent execution of the synthetic and analytic, or composing and decomposing functions. This is a very important and significant token of health. On a faithful and proper discharge of these functions depends the stability of the human system. The secretory or formative system of vessels builds up the fabric and repairs its wastes, while the excerning or decomposing system takes it to pieces and throws it away. No sooner does a particle of bone, muscle, nerve or any solid portion of the body become disqualified for its office or place than it is caught up by a vigilant absorbant, when the stock of vital funds is ample, passed into the general mass of circulating fluids, and, with whatever may be superfluous in that mass, hurried out of the body, and another particle of precisely the same size and shape is applied in its place, endowed with vitality, and recognised as a constituent part of the living body, and which cheerfully enters upon the appropriate duties devolving upon it. From the operation of this general law of transition the renovators themselves are not exempt; for these too are frequently renewed. A good evidence that the synthetic and analytic functions are well performed, in an adult individual, is found in the retention of the same size, form and weight.

Sixth mark—An efficient and uniform action of those delicately attenuated blood vessels, that are woven into a fine net-work and drawn closely over the whole body, which constitute a large part of the important organs, and enter largely into all of the soft solids, and are called by physicians capillary or hair-like vessels, from their fineness. These little vessels are the ultimate ramifications or divisions of the great artery and vein of the body, and form the conduits through which nutriment is carried to all parts of the system,

and the blood returned to the heart. That portion of these little blood vessels that constitute the covering of the body called the true skin, though so exceedingly minute, are so numerous and compactly interwoven, that the point of the finest needle cannot be made to pierce through the skin or any part of the body without drawing blood—and, strange as it may appear, when these vessels possess the highest degree of vitality, they circulate the most blood through them in a given time, and yet show it the least. This fact should be well pondered;—it will be noticed again and commented upon more particularly under the analysis of the symptom of disease called congestion, or fullness of blood vessels.

The individual who possesses the two last mentioned evidences of health in the highest degree, while he appears more unchangeable than another individual who has these evidences in a lower degree, is in reality more changeable; that is, he is taken to pieces oftener—made anew faster.

The evidences of good health given above form but a small part of what might be adduced, but they will answer our present purpose. Let it be remembered, as we pass to a consideration of some of the prominent marks of disease, that a high degree of health can only be sustained by a high degree of vital energy,—that this power is the basis of all vital action,—that if it be withheld from any part by intercepting the passage from the brain, the action of that part fails until the impediment is removed and the energy restored.

ANALYSIS OF DISEASE.

FIRST SYMPTOM.

Derangement of the action of the heart and arteries. The deviation may be in any degree, from a violent

throbbing or beating on the one hand, to an almost imperceptible action on the other. That a preternaturally quick and frequent pulse may be occasioned by, or depend solely on a deficiency of vital power, I suppose few if any physicians would deny, for in almost all cases of decline, as the vital energies wane, the pulse becomes more frequent, often so much so as to render it impossible to distinguish and count the beats. But how to account for the strong "trip hammer" pulse on the principle of deficiency of power is the poser. That the pulse does sometimes beat with more force than is natural to it, or than it ever does in the most healthy condition of the heart and arteries, is unquestionably true. But as it will be more convenient for me to show how this fact is reconcilable with the theory of deficiency of power as its proximate occasion, in connection with a similar apparent difficulty found in tonic spasms, I will defer the further consideration of it to what I have to say on the irregular spasmodic affection of muscles; except merely to observe in this connection, that it is much more rare than is generally supposed, for an artery to beat with more force in any form of disease than it does in the vigor of health. There are many *hollow hearted* throbbing pulses that are mistaken for heavy ones, that do not exert as much efficient, *go a head* force as the same arteries do in a healthy state.

SECOND SYMPTOM.

Impaired respiration or difficult breathing. This phenomenon, except when the air passage is obstructed, (and the obstruction, unless by a foreign substance, is based on debility,) is so obviously founded in deficiency of power, that it needs only a passing remark. A knowledge of the construction of the respiratory organs, which are known to act on the principle of the common bellows, would lead one to believe that noth-

ing but power was wanting to keep the lungs in play. But a little observation of facts will place the matter beyond doubt. Having in former years been much troubled myself with difficult breathing, I was led to inquire into its pathology, and found these facts to be true in relation to it, not only in my own case but in others, that, during the progress of severe asthmatic affections, or protracted paroxysms of difficult breathing, under favorable circumstances of mind and body, the breathing would occasionally at least be quite comfortable; the chest would have free play, showing that nothing was wanting to move the bellows but power; and after I had settled down in my present views of disease, believing that the creation of power directly or indirectly was not only beyond my ability, but that also shifting it from some other part to the lungs for a short season, by forcing into operation the law of stimulation, on the whole did more harm than good, I left difficult breathing to itself, as I did other difficulties, to be relieved by the natural accumulation of power, and never found my confidence in this respect misplaced. Cases would sometimes appear threatening for a while, but pass off happily sooner or later; and sooner for being let alone than if interfered with. "Doctor," said Capt. T., when he could get breath enough to enunciate, for he had run himself into *difficult breathing*, "my wife can't breathe much longer, unless you do something for her immediately." "Why, Capt.," said I, "your wife can't stop breathing if she tries." But I posted off with my potent powders and drops, and when, as was supposed, they had had sufficient time to operate effectually, the breathing was relieved.

In this case the difficult breathing was occasioned by diversion of power; a portion of the common ration to the lungs was more needed at the time somewhere else; but had the demand for it been ever so great in that direction, before the lungs would have

been left to cease *their* motion, power would have been held back from all the other portions of the general tissue or circle of parts with which the lungs were connected by a common dependence for sustaining and moving energy, and appropriated for the use of the lungs.

Difficult breathing is sometimes charged to spasmodic stricture, and the spasmodic stricture to irritation; but if all this be true, it is only multiplying the same proximate occasion once or twice;—*deficiency of power* is at the bottom, and runs through the whole.

THIRD SYMPTOM.

Change of temperature—too much or too little heat. This is a common symptom in most cases of serious derangement. "Why what a *burning fever* he has. Doctor, can't you subdue that fever?" It is important to know what it is that needs to be subdued, before we undertake the work of subjugation. How animal heat is produced, physiologists are not yet fully agreed, but let the *manner* of its production be what it may, chemical or secretory or both, it must be under the control of vitality; for, so far as it results from the union of carbon with oxygen, the process by which the union is effected must be enforced and regulated by vital action;—simple admixture of oxygen and carbon at the temperature of the body would not ensure combustion, and the quantities of the respective ingredients must be accurately weighed for use every moment, or else the consumers of alcohol and animal food would be in a constant fever; for it is very obvious from the dark color of their blood, that it is most of the time "rich in carbon," and oxygen is always at hand, and can be commanded by the lungs at all times, in any quantity; so that if the supply of heat depended simply upon a chemical process, the combustion would be limited only by the supply of carbon, and the pro-

duction of heat very irregular—but it is not so. When carbon is furnished in too large a quantity, the excess is held back and suffered to accumulate until its presence can be no longer endured, when nature makes a bonfire of it.

The temperature of the human body may, therefore, be regarded as depending on a double vital operation, one part of which may be called the calorific or heat-making, and the other calorifuge or heat-dispelling and regulating process. When all parts of the machinery concerned in this two-fold operation are in order and well supplied with motive energy, this double function will be conducted with so much unanimity and efficiency as to maintain the temperature of the body at one point—the ninety-eighth degree of Fahrenheit's thermometer. If the calorific process is quickened by exercise or otherwise, and more heat generated in a given time than is common, the calorifuge process will be accelerated in the same proportion, and the superabundance of heat thrown off, and vice versa. But when the complicated machinery in this department of the animal economy becomes so disabled, at any time, that it cannot produce the requisite quantity of heat, the temperature must consequently fall, and in proportion to such default. If the interruption is sudden and considerable, it will occasion a cold chill; if protracted, a continued coldness.

When the calorific process is sustained, and more heat produced than can pass off by radiation, and the calorifuge process is suspended, or the action of the capillary exhalents is too feeble to carry off the excess of caloric, it will accumulate, and be limited only by the law of radiation, until the calorifuge function is re-established. There is no wrong action—no cessation of one kind of action and the introduction of another diametrically opposite to the healthy, "in the interim of which the patient feels the chill." There is but one kind of machinery—one kind of power by

which it is worked—and but one governing principle. Want of power in the joint capacity of the double function is the simple reason why the harmony of its action is interrupted, and the temperature changed;—rest, for the replenishment of power, is the only remedy.

The interruption of the harmonious action between the calorific and calorifuge functions may be general or partial, affecting the temperature of the whole system, or parts of it.

There is one circumstance connected with feverish heat that should be known by every body,—it never rises more than seven, eight or nine degrees above the healthy standard—this may be uncomfortable, but can do no serious mischief. The temperature is prevented from rising higher than one hundred and six or seven degrees by the law of radiation. The human body is a good conductor of heat, as is proved by the rapid cooling of the body when bereft of the vital principle; and this conducting power is increased in proportion as the temperature rises, just as water flows off the faster as the river rises, spreads its current, and increases its rapidity. So that there is no danger of burning up or melting, even if nature should be under the necessity of making up a bonfire now and then, to get rid of a superabundance of carbon; except it be in old topers, who are said sometimes to burn up from spontaneous combustion, or the accidental communication of fire from their pipes or otherwise.

FOURTH SYMPTOM.

An irregular or spasmodic affection of the muscles. This is a very prominent element of disease. It is generally admitted that this symptom very commonly originates in debility; and the old theory of wrong action makes it a wasting, destructive operation. Hence a perplexing question has arisen—"If spasm has its

origin in debility, loss of power, and at the same time increases the debility by a more rapid exhaustion of power than the natural action would do, why does it stop, after it has become general—affecting the whole system—and nothing done to break it up or check its progress, until it has exhausted the vital energies and destroyed life?"

To this question no satisfactory answer can be given, on the theory of wrong action. For if the spasmodic action be wrong under the circumstances in which it was introduced and is continued—tends directly to the destruction of life; and the conservative power of the system is not a match for it at the outset; and in spite of all natural resistance becomes rampant—gains and holds a universal sway over the organism; the power of resistance diminishing according to the prevalence of disordered and disordering action; and the circumstances being the same, what possible chance can there be without foreign interference — the interposition of art — either to weaken the enemy, or throw in succor to the opposing forces? Yet it is well known to physicians, that there are spasmodic affections that pervade the whole system, become very terrific in their appearance, exceedingly distressing and annoying to the subject of them, and protracted for days, in which there is no more danger to life, if the disease is suffered to pursue its own course, without molestation or restraint, than there is in a common tooth ache.

The difficulties all vanish on the theory of right action. Want of power is the immediate occasion of the spasmodic action, but the spasmodic action has no tendency to waste power—the kind of power that is deficient and now recruiting—any more than the irregular motion of the mill, from which most of the water has been shut, does in wasting the head of water back of the gate.

For the benefit of the general reader, I will give a little of the anatomy of the parts immediately concerned in muscular action, before proceeding to the analysis of the phenomenon in question. The agents or instruments of motion are of two kinds, muscle and nerve. Muscles are distinct portions, fibres, or threads of flesh, which, by contracting, perform the motions of the body. A very good idea of the muscles may be obtained by uniting in a bundle, a quantity of fine threads of gum-elastic. Their power to contract is derived from the presence of the vital principle. This property or susceptibility of contraction or shortening, is called contractility.

Nerves are white, soft, inelastic cords, originating in the brain and spinal marrow, are distributed to every part of the body, and are the immediate organs of sensation and motion. Formerly the nerves were supposed to be only the organs of sensation. It is known now, however, that there are at least two sets, that perform each a separate office: one gives the sense of feeling, the other controls motion. It is the motor nerves with which we are now concerned. These, with the muscles, are the agents of motion. The muscles, by their contractions, perform the motions, and the nerves control them. The muscles are susceptible of being excited to action by electric sparks or galvanism, and various irritants, long after the body is apparently dead, or when separated from the body, and from all connection with the nerves. From this circumstance they have been supposed to possess a power inherent in themselves, distinct from the nervous power, which has been called vis insita, while the nervous power is called vis vitæ. The power possessed by the muscle is doubtless distinct from that of the nerve, but in all probability is derived from the brain, though from a receptacle of its own. For the sake of clearness in explanation, I will call

the contractile principle in muscles, vis muscula, or muscular power; and the power used by the motor nerves, vis nervea: this latter power is so called by physiologists. These two powers have each a law of their own, or separate rule of action; and each a distinct office to fulfill. The duty of muscles is simply to contract, shorten, gather themselves up lengthwise, in the same manner that a bundle of gum-elastic threads would, if they were extended, and the extending force removed. When a muscle is replete with the vis muscula, and has nothing to control it but the simple law of contraction, it at once renders obedience to that law, draws itself up, and holds itself in that position until its power is expended, then obeys the law of repose, relaxes for a new supply of power, and again contracts itself. The province of the motor nerves, is to control the vis muscula, and hold the muscles steadily in subjection to the will, if they are voluntary muscles, and if involuntary ones, keep them in subserviency to the functions of the organs of which they form a component part. So long as the vis nervea of any motor nerve that has a muscle in charge, is paramount to the vis muscula of the muscle, that muscle will be kept firmly in its place, ready for the discharge of the duty assigned it, whatever the muscle, or its office work may be. If the muscular power is great, the muscle will move forward in the accomplishment of its work with corresponding energy, and with as much steadiness as force. If the muscular power is feeble, its action will still be regular; and so of any intermediate grade of power. If the vis muscula is withheld from the muscles, no matter how strong the controlling nerve may be, there will be a paralysis or palsy of that muscle; it can do nothing until it is supplied with its own power again. On the other hand, if the muscular power is in the ascendancy, there will be cramp, or spasmodic action, and this unnatural action will be proportioned to the

disparity between the vis muscula and the vis nervea, or the excess of the former over the latter. Examples of this kind of action may be witnessed at any slaughter house, where poor inoffensive animals are felled to the ground with the axe, to the effect, if not with the design, of producing spasmodic, or some other morbid action in man. This mode of taking life, when the blow is not too heavy, suspends or destroys the vis nervea sooner than it does the vis muscula. After the animal has lain a few moments and revived somewhat from the concussion given the brain, the vis muscula rallies, and when it has collected in sufficient force, the muscles contract, and sometimes with great violence for a few moments, till the power is too much exhausted to produce contraction, then repose awhile for another partial recruit of energy, when the spasms are again repeated, and thus the paroxysms recur a few times, diminishing in duration and force, until the power is finally and forever exhausted.

The spasmodic action of the human stomach in vomiting, is occasioned by deficiency of vis nervea. The cause, whether it be tartar-emetic, tobacco, or whatever it may be, reduces the vis nervea below the controlling point, while the vis muscula, remaining in sufficient force, excites the action of the muscular fibres which surround the stomach, forming one of its coats, diminishes its capacity, and forces out a portion of its contents. That distressing spasm of the gastrocnemii muscles, which rather unceremoniously brings the young man from the bed to which he had repaired soon after leaving the ball room, arises from want of power in the controlling nerves of these muscles. Excessive exercise has so nearly exhausted the local reservoirs of vis nervea, that when the prudent economy of health indulges the law of repose, and enforces the law of limitation upon the fountain head of power, by which the tired nerves are temporarily deprived of aid from that source—their controlling grasp is relaxed

—the muscles, being more tenacious of power, set to jumping, and compel the young man to renew his dancing.

This theory, or principle of explaining muscular action, will account for all irregular or unnatural action of muscles. The kind and degree of this action will depend upon the particular structure or arrangement of the muscular fibres, the nature of their office, and the disproportion between the vis nervea and vis muscula, or the excess of the latter over the former.

The arteries have a muscular coat, but the nature and use of arterial action is such that any power applied to the arteries, must act in a continuous manner. If, therefore, the vis muscula of the arteries predominates over their vis nervea, the action or pulsation of the arteries will be proportionably more violent and harsh or throbbing, and this deviation or derangement of action will continue in a regular paroxysm, until the muscular power declines within the control of the nerves, or the nerves rise in power to the control of the muscles, or by a mutual approximation, the vis nervea gets the ascendancy, and restores the natural action. When the preponderance of the vis muscula extends to or affects the tissue of arteries, or the great artery of the body called aorta, there will be a general inflammatory affection; but when the excess is limited to a particular part of the arterial tissue, it will produce local inflammation, and what are called inflammatory affections. The type of fevers depends very much upon the correlative state of the arterial vis nervea and vis muscula. When the muscular power predominates in this tissue of vessels, the type is inflammatory, but when this power is deficient, and especially when it is reduced very low, and extends over the whole body, affecting the arterial system in all its capillary ramifications, the fever will be of the low typhoid type. Want of power, then, is the prox-

imate occasion of unnatural and spasmodic muscular action, and the danger in all such cases, where there is any, lies in the deficiency and failure of controlling power, not in the prevalence of muscular energy. The muscles never possess more power in the most furious, raving maniac, or the most uncontrollable tetanus, than they do in a healthy state. For nothing constitutes good health—the highest degree of vigor—but a full and overflowing state of the vital forces—not only in the general depository, and the repositories at the head of the several tissues, but in all the sub-reservoirs, and tissues themselves—every part of the system should be charged, surcharged, and sparkling with energy. There may be much inconvenience and discomfort from irregular spasmodic action, but no danger, under proper restrictions, some of which will be pointed out in another section. If it were desirable to reduce the muscular power, so that the muscles might be more readily controlled, the safest and best way to do it, is to let them exercise and throw it off themselves. Many physicians not only view the difficulty in inflammatory affections as consisting in the symptoms, and the danger, too, as resulting from them, but estimate the danger by the *degree of violence* in the inflammatory action; so that whenever this rises very high, they expect it will fall proportionally low, and the danger of an unfavorable termination be in that ratio. Hence they are anxious to keep down the action, in order to prevent the dreaded subsequent evils. Now admitting, for argument's sake, that the difficulty and danger lie in diseased action, it is still far from being true that the difficulty and danger is to be measured by the degree of violence or force in the inflammatory action, or else I have watched the progress of such affections to very little purpose. It is not unusual to see phlegmonous, or pure, burning inflammation of any and every part of the system, susceptible of such action, run

very high, and yet terminate kindly by what physicians call resolution—that is, without matter, mortification, or any unfavorable consequences; while other cases, with little pure inflammatory action, often end in effusion of water, producing dropsies; in exudation of lymph, a thick, sizy portion of blood, causing adhesions of contiguous surfaces; and sometimes a thickening of the lens, or some opacity in the eye, producing blindness; in schirrus, or induration of the glands; or in mortification. From these facts it is obvious that if deranged action produces all the evils that result from such action, the bad consequences of inflammatory action are not attributable to that action according to the amount of pure inflammation, but considerably, if not principally, to some other circumstances connected with it. I am aware that many physicians, perhaps a majority of them, agree with me in this last postulate, though they may not in my general theory of disease.

I will close this article by giving a short illustration of the operation of the principle on which muscular action is conducted and regulated.

A valued friend of mine, teacher of a high school, invited me, with a few others who were providentially at his house one evening, into his school room, to witness some exercises in reading and spelling by a class of boys. There were sixteen fine looking lads, whose ages would average about thirteen. In this illustration the boys are to represent muscle, and the teacher controlling nerve. The boys were arranged in a line on the floor, in regular gradation from the tallest to the shortest, and, as the illustration referred to, is now my only object, suffice it to say that every movement of the boys gave sure indication that the vis muscula was under the perfect control of the vis nervea. During the exercises, the teacher was called from the room for a short season, when we were gratified to learn that the muscles were well stocked with

the vis insita or muscula. There was, however, no "wrong action." The young, buoyant energies, finding themselves freed from the restraints of vis nervea, in playful mood, yet with becoming deference to the simple, primary law of civility, gave us a very pleasing exhibition and illustration of a fundamental element of the vital economy; and as no one present had confidence enough in the "break up" system to order a process of duress, the "disease" was suffered to take its course under the "let alone" treatment, and the event showed that that course was a judicious one, for in due time the restorative operation gave the vis nervea complete ascendancy over and control of the vis muscula, and a high degree of healthy action was reestablished.

FIFTH SYMPTOM.

Congestion of Blood. From the great importance of rightly understanding this phenomenon of impaired health, I shall take considerable latitude in the exposition and illustration of it. By congestion, physicians mean preternatural fullness of vessels, or unnatural collection of fluid matter. A blood vessel is said to be congested when it contains more blood than is natural to it in a state of health. I will divide this phenomenon into two varieties for examination.

First Variety.—An occasional and excessive fullness of blood vessels, in connection with serious derangement or disturbance of other parts.

Second Variety.—A moderate and more habitual fullness of blood vessels.

First Variety. Many diseases, and some of the gravest character, are supposed to have their origin and foundation in the surcharged state of blood vessels included in this variety, as sanguineous apoplexy or epilepsy, and some fevers and various other diseases, which, from this circumstance, are called congestive

fevers, and congestive diseases. I have before remarked, that congestion itself is but a symptom, and in common with the other symptoms, depends on a want of vital energy as its proximate occasion. A detailed account of one case of congestion of the first variety, will suffice for all the cases of congestion under that head, as the general principle involved in all is the same.

Soon after I had disclosed my change of views, and mode of treatment of disease, by public lectures and otherwise, to the community which I was serving in the capacity of a physician, I was called, late in the evening, to see Mr. C. H., about fifty years of age, naturally of strong, robust constitution, and of good parentage, but who had the misfortune to be by trade a hatter, in the dark age of intemperance. As I entered the room, I found Mr. H. in an epileptic fit, of the purely sanguineous kind, bordering closely upon apoplexy: his face was deeply suffused and bloated. Three of the neighbors, L. Osborn, Esq., Messrs. H. Downs and G. Blakeman, with a son of Mr. H. were in attendance.

After I had given the patient a little examination, Esq. Osborn said to me, "Well, Doctor, I suppose that in such a case as this you would do something." (In my lectures I had admitted that there were some very rare cases that formed exceptions to the general rule of letting nature alone.) I answered "No; this case does not come in as an exception to the general rule of 'let alone.' You are doing nearly all for the man that art can do, to any benefit.* The great work to be done is within—is Nature's own work, and she is now engaged in doing it to the full extent of her ability." As the gentlemen present were leading men

* I directed the head to be raised, for reasons that will be given hereafter, and put a piece of soft wood between his teeth, to prevent the further biting of his tongue, as blood was running from his mouth.

in the community, I improved the occasion to give them what I believed to be a true idea of disease, and especially to point out the error into which physicians had fallen, of mistaking a part of a disease for the proximate *cause* of that disease—as in such a case as the one before us, the prevailing belief among physicians was, that a congestion or fullness of the blood-vessels of the head was the immediate cause of the fit; that, however that condition of the vessels was induced, its existence compressed the brain, and thus closed the egress of nervous influence, and produced the fit. If it were true that the congestion were the real and only cause of the fit, facts prove that artificial means for the removal of the cause do more injury in the end than good. But the theory is not true for two reasons. 1st. A mere congestion of the vessels of the head produced by a suspension of the body with the head in a depending position, or by any other means that do not interrupt the action of other tissues, will not produce apoplexy or epilepsy, when there is not a predisposition to these affections. 2d. Because these affections do occur often without the intervention or accompaniment of congestion of the blood vessels. When these vessels are congested in apoplexy or epilepsy, it is only a concomitant symptom, growing out of an exhausted or a reduced state of the vital energy of the blood vessels of the head, just as the other symptoms depend on want of tone in the tissues whose deranged action constitutes those symptoms. After referring to the producing cause of the malady before us, tracing its effects from year to year down to the commencement of the event which had called us together, and directing attention particularly to the appearance of the man a few days just prior to his being taken down, the cumulative evidence furnished by his bloated, lowering visage, general aspect and demeanor, of a rapid verging to the point at which he had arrived, I remarked in substance as follows:

"There is no danger in the symptoms, singly or collectively. The danger lies back of the symptoms; it existed in all its extent before the process which is now going on in the system commenced. This is a recuperative or restorative operation. It was called for by the state of the system. It is, therefore, a gross libel upon the economy of life to call it a wrong condition—or wrong action. Instead of fits tending to the destruction of life, they tend to its preservation; and indeed are as absolutely necessary, in some cases, for the eking out of life, as the repairs of a ship, every day thumped against the rocks, are for its salvation. No man ever yet died *by* a fit; and when a man dies *in* a fit, his life is prolonged somewhat by it —as the captain, who, finding himself being driven upon a rocky lee shore, "tacks ship," and makes every effort in his power to get off and yet fails, avoids the rocks a little longer than if he had let his ship plunge on at once, without any effort to save her. With my former views of disease, I should bleed this man largely, and then follow that operation with pungent nervous irritants, internally and externally. This mode of treatment, in cases like the one before us, is found on experience to be the most efficacious in "breaking up" the fit; or, as I should say, compelling a postponement of the renovating process. The common theory is, that bleeding answers a double purpose. First, by abstracting a portion of blood, more space is allowed for the free circulation of the balance, by which the congestion is drawn off, without the previous removal of which, it would be hazardous to employ stimulants, as they would increase the "vis a tergo" (force from behind) of the heart and arteries, drive the blood into the head with greater violence, and thus increase the danger, by strengthening the proximate cause. Secondly, the abstraction of blood is supposed to increase the susceptibility of the system to the action of stimulants.

* After giving some general directions for the management of the patient, and requesting the friends in attendance to watch the termination of the case for the purpose of getting testimony to aid them in judging righteously between conflicting theories, I returned home and slept quietly the remainder of the night, without being haunted and disturbed by those terrible apprehensions of danger from leaving nature to do her own work, which, under similar circumstances, with my former views, would have made my pillow a thorny one. In the morning I found the man lying quietly in a profound stubor, from which no ordinary efforts (and none others were employed) would arouse him. The hideous, bloated, suffused and distorted aspect of the face had disappeared, and all the muscles of voluntary motion were quiet, and, except occasionally a little of the apoplectic stertor in the breathing, there was nothing to distinguish the case from a deep sleep. In the course of the first twelve hours, there had been seven paroxysms or fits. The first was characterized by more distorted, convulsive muscular action than the second; and the first interval, though of but short continuance, was longer and more perfect than the succeeding one, and so of all that followed; each succeeding fit was longer and less disturbed with convulsive motion than the preceding; and each succeeding interval shorter and less perfect than the one before it, until all irregular action was merged in deep, insensible stupor. This continued, very gradually lightening up, presaging a favorable termination, till the close of twenty-four hours from the commencement of the renovating process, when the man waked up, and in a day or two walked abroad, strangely metamorphosed from what he was but a few days before,

* At this point I endeavored to show how and when we had been deluded and misled by our theory, but as this exposition will come more properly under another head, I omit the insertion of it here.

so renovated in his physical system and energies, that the change was apparent to all who were in the daily habit of seeing him. The "congestion" in the vessels of the face and head was removed; those vessels had recovered power sufficient to give the blood a free circulation through them; and the blood itself, which before was "rich in carbon," on which its dusky hue depends, had been decarbonized.

There are two considerations derivable from this case that weigh heavily against the prevailing notions of disease.

First. That the man recovered at all without the intervention of artificial means.

Had congestion of the blood vessels of the head constituted the foundation of the disease, there could have been but little if any chance for recovery, after a few hours, without artificial help. Nature would have rallied what forces she could for the occasion, and made an effort to throw off the load; but as the difficulty, on the old theory, consisted in a blocking up of the source of power, the effort to remove the obstruction could have been but a feeble one at the best, and even this must have ceased in a short time for want of reinforcements.

Second. Had nature succeeded by dint of perseverance and desperate effort to relieve herself from the supposed proximate cause, the man, instead of appearing better for having passed through such a conflict, would have appeared the worse for it.

The economy of life doubtless suffered some inconvenience from the congested state of the vessels of the head. At first some danger to life arose from that source, but this was unavoidably incidental to a process necessary for the removal of danger from another source. When danger from congestion became serious, more power was applied to the congested vessels, their action is increased, and the man brought temporarily out of the fit, and so on, as often as danger pressed

from this quarter relief was afforded by a revival of action,—but as the law of acommodation fitted the parts to bear safely their new condition, the revivals were discontinued, and a settled state of the brain and its appendages maintained until the renovating process, or the object for which the change was undertaken, was accomplished.

Second variety of congestion or fulness of blood vessels.

The diseased condition of blood vessels to which I am now referring is very common, but till recently has attracted but little attention even by physicians, who ought to have been awake to the importance of the subject before. A little reflection by any one possessing a moderate knowledge of physiology, would show the paramount importance of having the capillary system of blood vessels, which is at the basis of all vital operations, in a healthy condition: and sound physiology teaches that these vessels, in a healthy state, are so exceedingly minute and intimately blended or interwoven in the several textures of the body, particularly the membranous ones, that, although they circulate large quantities of blood, yet impart but a light vermilion tinge to the surfaces of such textures, and spread that tinge over the surfaces of parts similarly constructed and covered, with such undistinguishable uniformity that the best sight can discover no distinct patches, lines or dots of red. When, therefore, these little important, nay indispensable instruments of life and health, fail to maintain their attenuated minuteness, and become habitually so dilated and distended as to show a heightened coloring of the surface, on which they form a net-work, it is because they lack the requisite power to prevent the change; and this congested state of these vessels, even if it be moderate, is palpable evidence that a broad foundation is laid for deranged or diseased action, and premature death.

Since the commencement of the temperance refor-

mation, many inquiring minds have been led not only to the study of the pathology of drunkeness, but also to a careful anatomical and physiological investigation of the effects of the moderate use of alcohol on the vital organism; and this investigation is discovering and disclosing facts that will lead to important results—yea, that will revolutionize the long established diatetic habits of families and communities, and work a thorough change in all their modes and practices of life that are inconsistent with health and longevity,—and restore man to primeval soundness, vigor and durability. It is devoutly to be desired, that every family might have a copy of Dr. Sewall's plates with explanations, in which are represented by accurate drawings the different phases of the human stomach, from its natural state through different forms and stages of derangement, to its utter ruin by alcohol. The first plate gives the representation of a healthy stomach, (comparatively, for there is no such thing on earth at the present time as a perfectly healthy stomach,) in which the minute blood vessels act with efficiency and screen themselves from view. For the purpose of showing, better than I can do it in any other way, the manner in which these vessels become moderately distended, and that this distension or congestion of them is a diseased or defective state, I will quote the explanation which Dr. Sewall gives of figure second on his second plate, which exhibits the internal surface of the stomach of the temperate drinker.

"Here the work of destruction begins. That beautiful net-work of blood vessels which was invisible in the healthy stomach, being excited by the stimulus of alcohol, becomes dilated and distended with blood, visible and distinct. This effect is produced upon the well known law of the animal economy, that an irritant applied to a sensitive texture of the body, induces an increased flow of blood to that part. The mucus or inner coat of the stomach is a sensitive membrane,

and is subject to this law. A practical illustration of this principle is shown by a reference to the human eye. If a few drops of alcohol or any irritating substance be brought in contact with the delicate coats of the eye, the net-work of fine vessels, which were before invisible, becomes distended with blood and is easily seen. If this operation be repeated daily, as the temperate drinker takes his alcohol, the vessels become habitually increased in size and distended with blood. Besides this injected and dilated state of the vessels of the stomach, the mucus coat of the organ always becomes thickened and softened—and these changes occur in temperate drinkers, as well as in the confirmed drunkard."

Who can believe that so important an organ as the stomach can be thus injured without serious detriment to the harmonious and healthy movements of the vital machinery of which the stomach is the main spring? But it is not the stomach only which is injured by the introduction of poisons into the system. Post mortem examinations show that other organs share largely in the effects of their pernicious action. In some instances the liver, brain, lungs or some other important organ had been destroyed,—rendered wholly unfit for use—while the stomach remained tolerably sound. I have endeavored to account for this in the previous section, under the head of hereditary and local disease. I will now direct attention to one of the methods by which every individual who has a mirror to consult may obtain some knowledge of the working and progress of the undermining operation of causes that are producing a distended or congested state of the capillaries of his own system.

The human fabric is in reality "fearfully and wonderfully made," and the mechanism of the face, is, perhaps, the most wonderful of all the wonderful parts of the body. Through the medium of this exceedingly complicated piece of machinery, nature is able not

only to telegraph the different states, affections or emotions of the mind, but she can paint or engrave upon this dial plate, with astonishing accuracy, the condition of all the important internal parts. I know of no field that offers more ample scope to physiological accumen and research, or that promises a more abundant harvest of usefulness than to make out a full and accurate symbolical table of the different kinds, varieties and degrees of impaired or defective states of the essential organs of the human system, that are deducible from emblematical figures drawn on their counterpart, the face;—trace out some of the principle causes of such defects;—point out the connection between cause and effect;—and make the whole so plain that every intelligent man may read in his own and his neighbor's countenance, the physiological latitude and longitude of each—make out their respective bearings and distances from the point of rectitude—and learn by what adverse winds and counter-currents they have been affected;—and wind up by showing the feasibility, safety and incalculable benefit of tacking ship —avoiding cross currents—inviting and securing favorable gales—and at length, at a more or less remote period, arriving at the haven of confirmed soundness, health and happiness.

But my present object restricts me to the single point of showing that any habitual enlargement of the blood vessels of the face, causing a redness "visible and distinct;" excepting what are called *nævi materni*, or "mother's marks," and cases of redness produced by local causes, or such as act directly upon the vessels of the face, as burns and the like; furnishes evidence that a deep and extensive injury has been perpetrated upon some or all of the important internal organs. In a natural healthy state the face is "flesh colored;" colored like the other parts of the body whose texture and covering are similar. The true skin of the face, as on the other exterior parts of the body, is

composed very considerably of the fine net work of blood vessels above named—the minute extremities of arteries and veins—and when they are in a healthy state, perform their functions without blushing. If vital energy abounds, the countenance will be lighted up with a glow of healthy action, which will sparkle in every feature and lineament of the face; but there will be no distinct redness. That a congestion of blood in the vessels of the face evinces a weakness or deficiency of power in these vessels is apparent from some very familiar facts. The phenomenon called blushing is produced by a sudden emotion of the mind, diverting for the moment the nervous influence or energy from the vessels of the face, which, being thus deprived of a portion of their power, fail to propel the blood forward as usual, and it thereby accumulates, constituting a congestion.

The same effect is produced by an exposure of the face to a hot fire, or receiving a blow upon it with the palm of the hand, &c., &c. These causes dissipate more power, for the time being, from the vessels of the face than their natural income, whereby they falter until their power is restored to its ordinary standard.

That an habitual congestion of the blood vessels of the face, with the exceptions just made, is connected with an injured state of important internal organs, is a momentous truth, and one that should arrest the attention of old and young.

It is a familiar truth, that grief and anxiety long indulged in, corroding cares and a too close and long continued application of the mind to study, injure the health, and have the evidence of it depicted in scarlet patches on the face—and it is equally well known that some forms of lung consumption, the effects of worms, and the immoderate use of ardent spirits, are so well painted on this public sign board as not to be easily mistaken. But the fact, the more

important and not less certain fact, that the blooming countenance, gently flushed with roseate hue, attendant upon the moderate use of alcoholic drinks, particularly wine and other fermented liquors—the use of animal food, butter, spices, &c.—is a symptom of disease, is not so generally known, nor indeed till lately very much suspected. On the contrary, it has been deemed essential to the formation of "a picture of health."

But that the state of the blood vessels here referred to is *bona fide* an unnatural condition, and betokens a corresponding defect extensively prevalent in the capillaries of important parts, I will offer three kinds of indubitable testimony in proof.

First. Developments from post mortem examinations, to subserve the cause of temperance, to which allusion has been made, are settling the point in question beyond all controversy. Facts evolved by these examinations show that the efflorescence of the face is correspondent with a congested state of the capillaries of the stomach, meninges of the brain, membranous linings of the chest, &c., some or all of them.

Dr. Sewall is good authority in this matter. In the stomach of the moderate drinker the blood vessels, compared with those of a healthy stomach, were found congested and on the highway to ruin. Dr. Sewall says that animal food, spices and other irritants will produce the same effects.

Secondly. Developments in real life bear the same testimony. The changes that occur from time to time in the color of the face tally precisely with the general tone and health of the system. Let the reader look around him and select some half a dozen of the finest models of physical structure and energy, in the common estimation, that he can find in his neighborhood, especially those that possess a *fine ruby* countenance, who make a moderate use of alcohol in any form, or who use flesh and spices; and if he will be patient and

observe them narrowly for a few years, he will find the following results.

When the general health is on the top of the flood, at the highest point of elevation, as indicated by slow, steady, uniform pulse, cool skin, easy respiration, general good feeling, physically and mentally, vivacity of spirits, and ease, elasticity and vigor of muscular motion, the face will be the least congested—show the slightest coloring—that is the lightest shade of coloring common to that individual. I don't mean a collapsed state of the vessels, which gives the countenance a pale or deadly appearance;—far otherwise—the countenance will at such a time exhibit uncommon sprightliness and animation. As the general energies flag, or the health declines, the color in the face rises. At first it will be a light vermillion, and be spread evenly over the whole face, showing that the blood is yet kept tolerably pure, and that the capillaries possess a good degree of energy. As the vital forces continue to wane, the color of the face heightens and darkens; and at the lowest ebb, appears in patches, or gives the face a motley aspect. If the individual possess naturally a sound, vigorous constitution, unless strong collateral or occasional causes intervene to favor the operation of the remote or producing cause, very good health will be enjoyed for years, with slight interruption, such as short colds, occasional pains, disturbance of the bowels, &c. But the constant action of irritating matter upon sensitive organs will at length call for reparation, as surely as the accumulation of vapors in the atmosphere demand a thunder storm for the purification of the air, and a close inspection of the physiological barometer will indicate the approach of the vital storm. It may come on in the form of "a terrible cold," "severe attack" of bilious fever, or some other unpleasant convulsion of vital elements. In any event there will probably be more or less of fever, as nature will have to get up something of a bon-

fire in the system to consume the superabundant carbon.

Thirdly. A double or two-sided experience is bearing strong, unanswerable testimony in favor of the position which I am attempting to establish. A total abandonment of all irritants, other things remaining the same, has been followed by the establishment of a sounder, better and more permanent state of health, accompanied by a corresponding abolition of the facial congestion.

The importance of understanding the nature and indication of a moderate and habitual distension or congestion of the little blood vessels of the face, will justify some further remarks on the subject.

Thirty years ago my attention was turned to the fact that hale looking men, with a moderately full and florid countenance, lived fast and died prematurely; but it was many years after before I understood the pathology of it.

In 1814 I was called to attend a Mr. J. H., possessing the characteristics above named, about fifty years of age, who was taken ill and ran down with an anomolous fever. A particular medical friend, in whose judgment I placed much confidence, saw him with me, and at the first visit pronounced it a fatal case; "and," said he to me, "if you live many years, you will see a number of cases of this kind, where fresh, hale looking men go on to from forty to sixty years of age, and sink rapidly, without any obvious assignable cause." I have lived to see that prediction verified. And among the number of those within my observation whose appearance, life and exit corresponded with the description embraced by the prediction of my medical friend, was that friend himself. In the zenith of his days, enjoying extensively the confidence and patronage of the community, looked up to and regarded by a doting family as a staff on which they might lean for years, his sun was suddenly arrested in its course,

and, with a rapid decline of only three short weeks, set in death.

Let it be remembered that no variety nor degree of "rosy cheek" is an indication of health, but contrariwise, a mark of very serious constitutional defect. A predisposition, or rather strong disposition, to congestion of blood vessels is frequently transmitted from parent to child; hence, it is very common in these days of flesh-eating to see little urchins, only a few years or even months old, with hereditary "honors blushing thick upon them."

(*Remarks on a portion of the quotation from Dr. Sewall, deferred, lest attention should be diverted from the facts referred to in the quotation.*)

Dr. S. accounts for the congestion of the blood vessels of the stomach, in the cases mentioned by him, by saying—"This effect is produced by the well known law of the animal economy, that an irritant applied to a sensitive texture of the body induces an increased flow of blood to the part."

This was formerly the general if not universal method of accounting for the unusual redness of parts—the congestion of blood vessels. It was supposed that there was an increased flow of blood to and through the parts, and increased action of the vessels of inflamed parts was given as the proximate cause of the inflammation. But this view of the subject is now abandoned by most intelligent physicians, and it is strange that Dr. S. should so long retain it. To my mind the presumption is that it was an oversight in him at the time of giving the explanation, his mind not being particularly directed to the *manner* in which the congestion was produced, he gave the explanation from old impressions. In most cases of inflammation, as well as in the ordinary congestions of blood vessels, which are but modified forms of inflammation, there is a *diminished* flow of blood to the parts. This takes place by a "law of the animal economy." Indeed

there is nothing done in the human system but by law. The association of organs in the human constitution is strictly a "law abiding community." This fact should be better known than it is; and the laws by which it is governed, better understood and regarded. The fact that the flow of blood to congested parts is *diminished* from the natural state is now fully established by experiments of various kinds. For instance, thin membranous parts, in which the flow of blood could be seen by magnifying glasses, have been subjected to irritation until the vessels were seen charged with blood; and it was found that the current of blood was checked before or as soon as the vessels began to dilate and be extended, and the distention increased only in proportion as the flow of blood diminished, till the circulation ceased and the blood remained stagnant. Therefore, it should be said that "this effect is produced upon the well known law of the animal economy, that an irritant applied to a sensitive texture of the body," by causing an undue expenditure of the propelling power of the blood vessels, "induces" a *diminished* "flow of blood to and through the part." The red eye, offered by Dr. S., for illustration, is produced by the operation of this law. The blood vessels of the eye continue on in their wonted routine of duty, sending forward the blood with their accustomed force and effect, against the counteracting influence of irritants, while they have power to do so; and as their power fails, they flag in their action and fill up. It is not, therefore, because those vessels get irritated, fretted, vexed, mad, and set to driving forward the blood more furiously than before they were disturbed, that they become dilated and show more blood. They always keep their temper, and do the best they can, governing themselves in all their actions "according to law." What is true of the blood vessels of the eye is true of blood vessels in every other part of the body.

Take another illustration; a finger moderately in-

flamed by a gradual approximation to fire. As the caloric enters the finger and begins to exert its divorcing influence upon the particles of matter of which the finger is composed, weakening their force of continuity, it becomes more difficult to sustain vital action, which occasions a more rapid expenditure of the vital forces; but so long as these can be reinforced and kept equal to the emergency, the integrity of the finger will be maintained, and all the functions discharged as usual. When the forces fail to meet the increased demand, the action falters, the health of the finger is impaired, and there is a corresponding development of the symptoms of disease—the finger is somewhat swollen, red and painful—the blood vessels are congested —but yet the action is not changed in kind; it is precisely the same in this respect that it was before it was disturbed by the caloric;—it has fallen below its common standard for *want of power.* Remove the cause—take care of the finger—and the general economy of life will see that the action is raised again as soon as power can be spared for the purpose.

SIXTH SYMPTOM.

A collapsed, inane or empty state of capillaries. This condition of the little blood vessels, over against congestion, is manifested by preternatural paleness.

Paleness of any particular surface may depend on one or more of a number of causes, both general and local; but I will stop here to notice but one variety of the void or inactive states of the capillaries—that which succeeds a congested state of those vessels from excessive excitement.

Physicians know very well that men who have plied their main organs to much extent with irritants, particularly with alcoholic or narcotic stimulants, are in danger of having the secerning or secreting vessels of those organs destroyed.

In the latter part of the last century, Dr. B., of L., in Connecticut, called on his friend Dr. R., who was quite ill, to tender him some brotherly advice. They were both prominent men, and both free livers. Dr. B. says to Dr. R.—"you must stop drinking or you are a dead man." "You drink, don't you, Dr. B?" says Dr. R. "Yes; but it makes me look red, while it is making you look white." But they had both got where, in those days, there was no stopping place. When the *pale* flag is hung out on the front of the capital, under such circumstances, death is at the door. Post mortem examinations of such cases show that some one or more of the internal organs are as white as the face—and the liver of hard drinkers is oftener found in that state than any other organ, for two reasons.

First. The blood flows more slowly through that organ than any other, affording an irritant or poison a better opportunity to act on it.

Second. The liver contains a large portion of albumen, which is particularly obnoxious to the action of alcohol. From the fact that a white face is found to indicate a white liver, has arisen the vulgar expression —"white livered." There are a great variety of white livers. I saw one that was about one third larger than natural, light, soft and spongy—very much resembling lungs in structural appearance. Another was somewhat diminished in size, and indurated. The process of induration or hardening had commenced at a great number of points through the whole organ, which were white and hard like cartilage. From these central points extended diverging circular lines, becoming less hard and white, till they met and were merged in similar diverging lines from other centers, giving to the substance of the liver as it was cut through, a light gray and gristley aspect.

But whatever may be the quality or character of the bleaching, the master engraver will be careful to

have a correct impression of it made on the counterpart—the face. If the liver is bleached, and its substance soft and spongy, the face will appear somewhat bloated, pale and flabby;—if the liver be white and scirrous, the face will be of a pearly appearance. If the capillaries of the internal organs are in a mixed state, some bleached, and others unbleached, yet in a state of congestion, not having wholly lost the power of capillary attraction, the facial signal will be bi-colored. In the summer of 1842, while on a visit to my native state, I met with an old acquaintance and friend, whom I was concerned to find in feeble health. I was struck at once with his marred visage. His cheeks were covered with semi-pearly patches, fringed with pale red. In early life he had made a pretty free use of brandy and wine, but for a number of years had used no alcoholic drinks of any description, and generally enjoyed good health. He was a stout built, portly looking man, and retained much of the florid countenance that he acquired or possessed under brandy drinking, till his general health began to fail, (which was only a few weeks previous to the interview just referred to,) kept up by the stimulus of animal food—for he was fond of savory viands.

He was on a walk, some half a mile from home, when I took my final leave of him. I inquired particularly into the manner in which he had been affected. He said his health was improving, and expressed a belief that he might soon get his usual strength. Alas! thought I, your sands are nearly run. A few mornings after he was found dead in his bed.

SEVENTH SYMPTOM.

Pain or distress.

This is a very common element, as well as strong evidence of physical depravity—one with which few if any of "the degenerate plants of a strange vine" are wholly unacquainted.

Deficiency of the vital principle is at once the occasion of this part of disease. Good feeling is the natural condition of the unvitiated sensibility. When the nerve of sensation in a tooth or any other part is highly charged with vis vitæ, that tooth or part is raised far above the point of pain, but when this principle is reduced to a certain point pain ensues.

A painful diathesis, or susceptibility to pain, is not always nor generally proportioned to muscular vigor, but depends on the structural condition and vital endowment of the nervous tissue, whose province it is to produce, sustain and regulate the sensibility.

EIGHTH SYMPTOM.

Irritability.

Formerly the contractile power of the muscles, which I have called vis muscula or muscular power, was treated of by physicians under the general name of irritability—especially by Dr. Haller, who flourished about a century ago, and made it, properly, when viewed in this light, a distinct thing from sensibility, both of which might be in a sound or diseased state.

But the term irritability as used by physicians at the present time, includes in its meaning nothing more than a modification of nervous susceptibility, which may exist in different degrees, as pain or any other symptom of disease—indeed it is the same thing in kind as pain, differing only in degree. It consists in a *diminished force* of nervous sensibility. Let what is called an irritable diathesis or state of the nerves be lowered a little, and it becomes a painful diathesis. Thus, in the experiment of the burnt finger, when the sensibility is moderately impaired, it is in an irritable state; drop the sensibility a little lower, and it becomes painful; increase the impairing process, and the pain increases to agony, until, if the process be carried far enough, the vital principle is exhausted, and all susceptibility to pain destroyed.

This is the reason why irritability has been mistaken for the proximate cause of inflammation. It always, from whatever cause the inflammation arises, forms the incipient stage of that affection; hence it has come to be regarded by many physicians as the foundation of it, but is in fact no more its foundation than the sills of a house constitute the foundation of the house.

NINTH SYMPTOM.

Effusion, of blood or water.

Effusions that take place from capillaries are here intended; not such as occur from wounds or ruptures of blood vessels. The capillary vessels, when in a healthy condition, are remarkably tenacious of the fluids which they circulate, and they must be reduced very low in their strength before they will consent to part with any of them in an unnatural manner. So that deficiency of power is not only the immediate occasion of effusion when it ensues, but is also evidence that the vessels concerned are reduced to the last extremity. Men who are under the necessity of passing a razor over their chins frequently, can discover a striking difference in the force with which the capillaries of the face grasp and hold their charge at different times. When these vessels are strong and active, and send on the blood without making much show of it, there is not much danger of their bleeding, even if they are somewhat cruelly hacked up with a dull razor. But when they have been enfeebled by exposure to severe cold, and especially if this exposure has been succeeded by a sudden introduction into a warm room, or by being placed before and near a hot fire, it will be comparatively easy to draw blood from them.

But my main design, in the examination of this symptom, is to call attention to dropsical effusions that sometimes take place through the patutous extremities of exhausted capillaries into internal cavities, and to

caution against an inteference with the remedial efforts of nature in these cases; for I have strong testimony in favor of such efforts in all the various kinds of dropsical affections. I will here, however, trouble the reader with but a brief statement of one case of threatened effusion on the brain.

The subject was a child of a Mr. Dolbere, then a resident of Oberlin, about two years of age. The first form of derangement was that of remittent fever, with much affection of the brain, evinced by its moans and cries, rolling its head on the pillow, and putting its hands to and about its head. The second form of disease, which continued about three days before there was much apparent improvement, was a deep, settled comatose state—the child lying with the eyes two thirds open, and pupils dilated. It was rather a severe trial to the mother to see a beloved child lie so long apparently near death's door, and nothing done to rescue it from the grasp of disease and the jaws of death: and this trial was heightened by the strongly expressed sympathy of kind neighbors and friends, who assured her the child could not live unless something was done to remove the disease.

At one of my calls to see the child, pretty early in its complaining, Mrs. D. says to me—"Doctor, if there is danger of effusion on the brain in this case, it does appear to me that there should be something done to prevent it." I told her there was apparently very great danger of effusion, and also that there was much being done to prevent it;—that the economy of life had turned aside from her ordinary operations for the express purpose of trying to prevent such a catastrophe, and that every movement in the system had a direct adaptation and tendency to that end. The parents were probably the more reconciled to the course pursued, from the fact that they had lost two children with dropsy of the brain, successively, as they arrived at about the age of the one then sick, both of which had been thoroughly doctored.

The child recovered its health and continued to enjoy it till the family left the place, a few months since, and the presumption is that it is yet alive and well. The sickness occurred some four years since.

TENTH SYMPTOM.

Cough.

Want of vital energy is the generic proximate occasion of this troublesome symptom of impaired health. I feel more confidence in giving an analysis of this phenomenon, from long experience with it.

The general opinion among physicians is that cough has its foundation in irritability of the lungs, excited by irritation of some kind—the presence of phlegm in the lungs, or foreign irritants inhaled into them, as dust, smoke and the like; or by counter-irritation from worms, indigestible matter in the alimentary canal, &c., &c.

Irritability generally accompanies coughs, for it is a concomitant of most impaired states of health; but it is itself a symptom. It is not necessary that there should be an irritant to provoke a cough, as I have verified often in my own case, from bringing on a cough in a variety of ways. Fatigue from exercise will do it, when the catarrhal tissue is in a feeble state. Under these circumstances expending energy by mental effort will do it. Sometimes in giving my mind closely to a public discourse, in which I get deeply interested, the first I know I find myself in a fit of coughing, from which I cannot refrain.

It is a universal law of the animal economy that good feeling can only be maintained by a good degree of vital action. A reduction of power, therefore, in the catarrhal tissue (and in my case this part of the system is constitutionally and seriously defective) occasions an uneasy, disturbed feeling, which will prompt to some means for relief, and an effort at coughing

serves to elevate the action for the moment, and gives temporary relief.

Different kinds of cough depend on different conditions of the affected parts. Hooping or spasmodic cough arises from an interruption of the balance of power between the vis nervea of the motor nerves and the vis muscula of the muscles concerned in the process of respiration.

While deficiency of power is the *generic* proximate occasion of cough, there is a great variety of immediate occasions of this deficiency.

Power may be diverted from the lungs in a great variety of ways, and by a great variety of causes. I have stated two or three, and will give one more—loading the stomach too heavily, either with suitable material, from having too great a variety, from the food being hard of digestion, or a portion of it indigestible. In this and similar cases the cough is not excited by counter-irritation, that is, by an action of a particular kind, created in the stomach and sent across to the lungs; but in consequence of there being more power appropriated to the stomach, and less to the lungs. For although the stomach and lungs may not be both included in the same circle or class of organs that have a common source of power, yet, in time of need they both draw largely from the general or distributing fountain; so that when all the sources of power are reduced, a hard dinner, worms in any portion of the alimentary canal, as well as a great variety of other causes may occasion a diversion or different appropriation of power, that will bring on coughing. Moreover, when the tide of vital energy is low in the catarrhal portion of the system, irritants applied directly to the lungs produce more effect than under other circumstances. Sometimes the least dust or smoke &c. will cause me to cough, when at other times coughing is not easily excited.

There are many other symptoms which it might be

interesting to examine,—such as sweating and its opposite state, or too much and too little perspiration; obesity and leanness, or too much and too little flesh; eruptions, &c., &c., but from what has been said the reader will find no difficulty in making out their proximate occasions.

SECTION V.

AN EXAMINATION OF SOME OF THE PROMINENT CAUSES OF IMPAIRED HEALTH, THEIR NATURE, AND MODE OF OPERATION IN LAYING A FOUNDATION FOR DISEASE.

We are not living in a world of *accidents*. This truth is well known, but not *realized*—is not made a matter of *practical* belief. Things do not *happen* by *chance*—events do not transpire without an agent. It therefore becomes an important practical inquiry—Why is man the miserable, wretched being that he is? Who or what has made him such? God made man upright—perfect of his kind. He implanted deep in his constitutional structure, motive energy, and laws of action, a strong tendency to perfection in physical being, and adapted external arrangements to the same end; and there is no evidence that this tendency and adaptedness have been reversed, save in the *perpetuity* of the living principle. With respect to this, the sentence, "In the day that thou eatest thereof, dying thou shalt die," was executed. Man became mortal—bounds were set to his earthly existence—the oil of life was limited in quantity: but had Adam, with his posterity, unqualifiedly accepted and fulfilled the conditions of the gracious provision made for restoration to the Divine favor, the lamp of life, while it held out to burn, might have burnt as steadily and as brightly as if the oil had not been limited in quantity. And now, sunken and degraded as man is, his constitutional susceptibilities and tendencies are still upwards, favorable to his elevation to the pinnacle from which "Adam by transgression fell." Nor do the arrangements of Providence offer any bar to "a consummation so devoutly to be wished." Simple nutriment and pure water are as well adapted to the growth and suste-

nance of the human organism, light for vision, air for respiration and hearing, and the domestic, social, and moral relations, when purified and improved in accordance with the true spirit and principles of those relations, are as well calculated to promote human happiness, as they were in Eden, before the dark spirit of revolt entered it. It is not true, as some physicians believe and teach, that "life is a forced state." Nay, but the opposite is true, that impaired health and premature death are forced results—produced, too, by the operation of forces, in the aggregate, of no moderate amount. It requires a tremendous pressure to keep the human system, crippled and feeble as it is, from rising and asserting its claims to its birth-right.

We will commence an examination of some of the weights that constitute a modicum of this pressure, with

ALCOHOL.

This potent enemy to life and health has been for some time prominently before the public, and being more thoroughly understood than any other deleterious substance in common use; and as it will be convenient to use this source of impaired health, with the knowledge which we have now of its nature, manner of operating, and its effects, in illustrating the general principle of poisonous or deleterious influences on the system, show how we have been deceived with regard to these influences, and as we may thus do something also to aid the cause of temperance, we will use some freedom in our remarks on its nature and operations.

It is now a well established and generally admitted truth, that alcohol is identical wherever found, and in whatever company. It is the product of the fermentation of saccharine matter, and whether it is taken into the stomach in connection with water alone, sugar and water, or in the form of beer, cider, ale, porter, or wine, the effect is the same.

Immediate Effects of Alcohol on the Human System. It has been said and commonly supposed that, "Alcohol enters the system alcohol;—it leaves the system alcohol, unchanged and unoperated upon by any of the organs with which it comes in contact, or to whose influence it is subjected through all its passage in circulation."

This is a mistake. Alcohol acts chemically and directly upon a portion of the system called *albumen*, so called from its resemblance to the white of eggs, whose Latin name is albumen. The albumen, or coagulable lymph as it is sometimes called, enters largely as a constituent principle into all the animal solids, and exists in considerable quantity in the serum of the blood. It forms the basis of fermentation, and when destroyed or so far changed that the process of fermentation cannot proceed in dead animal bodies, those bodies will be preserved from that source of decomposition; and it is well known that human bodies are sometimes preserved in rum or proof spirits, after life is extinct, for the purpose of transportation to their friends. It is a common practice with physicians to immerse tumors and other parts of bodies that have been extirpated and possess some special interest, in spirits, for their preservation; and small animals are frequently preserved a long while in rum. In the union of alcohol with albumen, the special properties of both are destroyed, and a *tertium quid*, as chemists call it, a third or new substance is produced, of an indurated, firm consistence. Alcohol will lay hold of the albumen and change it, as soon in a living body as in a dead one. The living organs do not turn aside from their ordinary labor, as some have imagined, to fight Alcohol, or hustle him out of their dominions, but pursue their several occupations as if no enemy was nigh, and when mischief has been done, they remove it as fast and as far as they can. Professor Liebig supposed from the fact that no alco-

hol could be detected in discharges from any of the emunctories in the moderate drinker, it must be decomposed, and used for respiratory purposes; an opinion fraught with much evil to the temperance cause. In a healthy vigorous state of vital machinery, the removable effects of alcohol will be obviated sooner and more effectually than in a weak, disabled condition of it. Hence the sudden and early destruction of young men in the present degenerate age, compared with the long-lived drinkers of by gone days; and the deep and lasting injury inflicted on important organs by the free use of alcohol in severe cases of illness. The organs that are most liable to be left in an indurated or deranged state from the action of alcohol, as ascertained by post mortem examination, are the liver, stomach, kidneys, lungs, and brain. The liver is the most in danger from the slow motion of the blood, in its passage through that organ.

Secondary Effects of Alcohol. By secondary effects here is meant functional derangements, such as fevers, bilious bowel affections, and various kinds of diseases. When any organ becomes so loaded with alcoholic tertium quids that it can no longer move on to a successful or advantageous discharge of its function, the law of limitation interposes, by which the force of the recuperatory machinery is augmented, and the defective parts more effectually removed.

Permanent, or Deeper and More Lasting Effects of Alcohol on the System, with Facts and Remarks. Reference is now made more particularly to those effects of alcohol that are brought home to the sensibility of drinkers by what are called cravings for strong drink. The object is to show that a deep and lasting injury is inflicted on the system by alcohol far beyond what is generally conceived to be. My attention was more particularly or intensely called to this species of evidence of the dreadful effects of alcoholic liquors, under the following circumstances.

A number of years ago, I was called to the ship yard in Derby, to see John B., a man about thirty years of age, of naturally stout, robust constitution, who had fallen from a scaffold in a fit, head first upon a spike below. In my visits to dress the wounded head, I spoke to him of the folly and danger of continuing to indulge his habit of drinking, and obtained from him a promise that he would abandon it. Not long after, I learned that he was drinking again, and reminded him of his promise. His excuse was, that it would not do for him to abandon the practice of drinking suddenly. A few weeks after this, he called at my office and requested me to bleed him, or do something to prevent a fit, for he felt much as he did a short time before having the last fit. I said to him, "John, sit down here with me, and let us consider your case a little." I drew two pictures and held before him; one presented a wife and three little children, with a circle of friends made happy, and himself respectable and useful in society; the other a wretched family, and himself moldering in a drunkard's grave; and appealed to him to decide which should prove to be the true picture. The poor fellow burst into tears, and wept like a child. When he had recovered himself from sobbing, so that he could speak, he said, "Doctor, to tell you the truth, it is not because I am afraid of the consequences of stopping suddenly that I do not give up drinking. *I can not do it.* I have tried and tried again to do it, but it is all in vain. Sometimes I have gone a number of weeks, and in one instance, ten months, without drinking, and I flattered myself that the thirst for strong drink was gone; but it returned, and such was my indescribable hankering and distress for rum, that I could not keep away from it; and now if there was a spot on earth, where men lived and could not get spirits, and I could get there, I would start in a minute." I thought I had understood something of the difficulties of hard

drinkers before, but this gave me a new impression of the matter, and most solemnly did I charge myself to do what I could to make "a spot on earth where men could live, and could'nt get" spirits. Within two years from that time, poor John was moldering in a drunkard's grave. This was before the heaven-commissioned Washingtonians were sent forth on their errands of mercy.

B. T., obviously under the influence of strong drink, called on me one evening, and desired me to make a visit to his family. Circumstances made it necessary for me to protract my visit. Towards morning when T. had waked up in his sober senses, (and in that state he was a very sensible man,) I improved the occasion to have a serious talk with him respecting his habits of drinking. With many tears he gave me a similar account to that of John's, and made many confessions. He had taken a solemn oath that I should never set foot in his house again. In his sober moments he knew and felt that those who were advocating the temperance cause were his best friends, but when "half seas over," his hatred of them was great.

Dr. Mussey, in an address before a medical society, says: "A few years ago a tipler was put into the alms house, in a populous town in Massachusetts. Within a few days he had devised various expedients to procure rum, but failed. At length he hit upon one that proved successful. He went into the wood-yard of the establishment, placed one hand upon a block, and with an axe in the other, struck it off at a single blow. With the stump raised and streaming, he ran into the house, crying "Get some rum—get some rum! My hand is off!" In the confusion and bustle of the occasion, a bowl of rum was brought, into which he plunged the bleeding member of his body, then raising the bowl to his mouth, drank freely, and exultingly exclaimed, "Now I am satisfied."

A few years since I saw the report of a case in a temperance paper, presented by the Rev. Mr. Arm-

strong, which set this subject in a still stronger light. Mr. A. attempted to dissuade a young man of great promise from habits of intemperance. "Hear me first a few words," said the young man, "and then you may proceed. I am sensible that an indulgence in this habit will lead to loss of property, the loss of reputation, the loss of domestic happiness, to premature death, and to the irretrievable loss of my immortal soul; and now, with all this conviction resting firmly on my mind, and flashing over my conscience like lightning, if I still continue to drink, do you think any thing you can say will deter me from the practice." "And such," added Mr. A., "are the sober reflections, the agonizing convictions, of every drunkard."

Before going into an inquiry into the nature and condition of the system on which this direful habit rests, I want to impress the reader with another feature of it—its perpetuity. It can never be put off during the life-time of the individual; it may be covered up to appearance, but it cannot be effaced. Dr. Rush, to express his view of its tenacity, said: "If a man was sent to hell, and kept there for a thousand years as a punishment for drinking, and then returned, his first cry would be, 'Give me rum—give me rum!'" Dr. Rush was half a century in advance of most others of his day on the subject of temperance. Long before the temperance reformation commenced, a young clergyman from one of the West India islands, placed himself under the Dr.'s care for an affection of the chest, and was put under the use of garlics. He said to Dr. Rush, after a short trial of the remedy: "I am satisfied your medicine is doing me good, but I wish you would let me steep it in some good old Geneva." "No," said Dr. Rush with emphasis, "no man shall look me in the face, in the day of judgment, and tell the Almighty that Dr. Rush made him a

drunkard." I wish I could say as much as this in reference to myself, with a good conscience.

A young gentleman, after drinking hard a number of years, abandoned the practice, became a Methodist clergyman, and twenty years after he had tasted any kind of alcoholic drinks, called one evening on a friend in Albany, wet, cold, and very much fatigued, after a hard days ride in a storm, and was urged by his friend to take a little ale, with an importunity that would take no denial. At length he consented, and drank part of a glass. After sitting a little while, he took his hat, left the room suddenly, went to a grocery store in the neighborhood, and called for and drank spirits; from this store he went to another; and in the course of the evening called at a number of these thoroughfares to death and hell—became noisy and furious—and was finally taken to the watch-house. In the morning, when the fumes of alcohol were off, or when the vital forces had rallied so that he could command his mental faculties, all that he could distinctly recollect after drinking the ale was, that his head felt terribly.

Dr. Mussey, after stating the case of the young man who cut off his hand to get rum, says: "In another populous town in the same state, there lived an habitual drinker, who, in an interval of reflection, made a vow that he would drink no more spirits for forty years, not doubting at the time, that forty years would place him in his grave. He faithfully kept his vow, and at the expiration of the stipulated period, ventured to take a little liquor, as it seemed no more than a friendly salutation given to an old acquaintance, and in a short time died a sot."

Dr. Mussey gives another case within his own knowledge, of a man, who, after drinking hard a number of years, was induced to make a solemn vow, "that by the help of God, he would never again

drink any thing stronger than beer, unless prescribed for him as a medicine by a physician. He kept the vow, became sober, and apparently religious, and for a number of years sustained the character of a devout man. At length, he lost by degrees, his religious sensibility, grew dull and stupid, heedless alike of religious duty and attention to business, and eventually died a besotted drunkard. He assigned as a reason the prescription of a physician."

I have introduced these facts for the purpose of getting the attention of the reader to the cause which compels men thus to plunge themselves, by a perpetual plunging, into utter and hopeless ruin for time and eternity, with their doom, written as it were with sun-beams, constantly before their eyes, and made to flash over their consciences like lightning; or, if their course be interrupted for a season, longer or shorter, and be resumed again, thence proceed in their downward course as if no interruption had been given to it. It seems to have been the common impression, that alcohol circulates through the body, excites the action of the heart and arteries, quickens and enlivens the animal spirits, then passes off and leaves no trace of its visitation, when used within reasonable bounds, or at most, nothing more than a temporary loss of power, which is soon restored by a self-moved power pump. This is a great and fundamental error. Every drop of alcohol that enters the stomach inflicts an injury that will continue as long as the old stock lasts, and reach even to the young sprouts. It may not be enstamped on them in precisely the same shape that it was on the original stem, but it will affect essentially the same parts. All injuries done the body, by whatever agents or instruments, reach far forward in life. Scars from cutting instruments, fire, &c., remain during the life-time of the individual, without material change; deformities also of the bony structure, that are fixed in adult age, are not soon or easily removed

—for example, the contraction of the chest in early life by tight lacing. The body will be made over anew frequently, every part and particle of it, yet the form and scars remain unchanged in appearance. Parts that have been injured, although they may appear to be as sound as they were before, never heal as readily again after being wounded as they did the first time, circumstances in other respects remaining the same, and they are always more liable to give out under the same degree of exhaustion of power than before; and a repetition of the injuries increases the difficulty in a direct proportion to the force and frequency of the repetitions. This holds true of injuries inflicted by alcohol, as well as of all others. A portion of the effects of alcohol, immediate and secondary, is removed as power and opportunity are afforded, but a portion remains to be carried far forward. A drop of alcohol of course produces but little effect, yet it does produce that little, and will do a thousandth part of the mischief that a thousand drops would.

People sometimes wonder why such and such men, possessing great intellectual power, and firmness of character in other respects, cannot drink moderately, and not give themselves up to drunkenness. They become drunkards *by law*—fixed, immutable law. Let a man, with a constitution as perfect as Adam's was, undertake to drink alcohol, moderately and perseveringly, with all the caution and deliberate determination that he can command, and, if he could live long enough, he would just as certainly become a drunkard—get to a point where he could not refrain from drinking to excess—as he would go over the Niagara falls, when placed in a canoe, in the river above the falls, and left to the natural operation of the current. And if this man, after having commenced progress down the river of intemperance, were to go ashore at any time, or from any point in the river, and remain on shore a longer or shorter

period, and then take to his canoe again, he would start afresh for the falls at the very point from which he left. And proportionally as he descended the river would his alcoholic attraction for it increase, so that he would find it more and more difficult to leave the current, until he reached a point where escape was impossible.

This matter should be well understood, so that if men will venture into the current of intemperance, they may know what to calculate upon. But in order that they may be able to keep a correct log book, make out their latitude and longitude, bearings, distances, &c., there are two considerations that need attention.

First, much depends upon the state of the system, at the time of venturing into the current of intemperance. Many individuals at the present day, begin life very far down towards the cataract of drunkenness, where the current has much strength; (an awful legacy for parents to bequeath to their children;) some much further on than others; and most persons possess strong constitutional susceptibilities, that would facilitate a descent in the alcoholic current, if the boat of life were pushed out into it.

The second consideration is, that a great variety of other causes may be made auxiliary to alcohol in expediting the voyage of intemperance. Whatever injures the system, or unnecessarily exhausts the vital forces, tends to this effect.

Now whatever theory may be adopted in relation to the pathology of drunkenness, facts, which are stubborn things, prove most conclusively,

First, That when the inebriate abandons all use of alcoholic drinks, the economy of life immediately puts in operation a train of action that generally results in the apparent renovation of the physical system—that is, appears to remove the effects of alcohol. And,

Secondly. That, nevertheless, a deep, latent, and serious evil of some kind remains, and is not effaced until the "vile body" is changed. With this agrees the testimony of Doct. Sewall. "What takes place in the stomach of the reformed drunkard?—the individual who abandons the use of all intoxicating drinks? The stomach, by that extraordinary power of self-restoration with which it is endowed, gradually assumes its natural appearance. Its engorged blood vessels become reduced to their original size, and its natural color and healthy sensibility return. A few weeks or months will accomplish this renovation, after which the individual has no longer any suffering or desire for alcohol. It is nevertheless true, and should ever be born in mind, that such is the sensibility of the stomach of the reformed drunkard, that a repetition of the use of alcohol, *in the slightest degree, and in any form, under any circumstances, or in any place,* revives the appetite; the blood vessels again become dilated, and the morbid sensibility of the organ is reproduced.

Dr. S. does not mean by the revival of appetite, a natural call for spirits, but a restoration of the painful condition of the body that would generate the desire in the individual for something to relieve the distress. I think however it would be better to designate that morbid desire by some other term, which should exonerate nature from all odium in the matter. The wrong use of language is apt to mislead. The distress and consequent hankering for spirits which tiplers feel on the long absence of their accustomed beverage, has been likened to the distress occasioned by the too long absence of food, and called an appetite or thirst for spirits; and by some the condition of the system out of which the distress arises, is regarded as second nature; that is, nature has been so long accustomed to the use of strong drink, that she is under the necessity of depending on it for support, for awhile at least, un-

til by a gradual change she can get back again to where she can sustain herself on unstimulating diet. Nothing can be further from the truth than this opinion, and there are but few false notions that are more pernicious in their practical tendencies and operations. The pain of hunger, arises from the want of proper material for building up and sustaining the human fabric, and the pleasure experienced from the supply of this material, is the pleasure of a want supplied. But the distress occasioned by the absence of long accustomed stimulants, arises from an exhausted, debilitated, tired state of parts, while under the operation of the law of limitation for an improvement of their condition,—and the relief obtained by a resupply and use of stimulants is at the expense or still further reduction of power, already too much exhausted.

In the former case, the supply is absolutely essential to life, in the latter, it "is not only unecessary but positively injurious." Although the uneffaceable effects of acohol, remain permanently the same in the reformed inebriate, they are not always covered to the same depth, but are sometimes much nearer the surface than at others. When the system has recently undergone a thorough renovation in repair and vital replenishment, the man may take a glass of grog without being forced into a fit of drunkenness, *nolens volens*. Under these circumstances, the man who took a part of a glass of ale, through the mistaken kindness of his friend, might have taken a whole glass and not been frenzied by it. But when the wheels of life move tardily from deficiency of power, a very small quantity of alcohol in any form, will very seriously and painfully affect the sensibility, and wake up an ungovernable desire for immediate relief at whatever hazard. Yet under the most favorable circumstances, the alcoholic defect operates as a drawback upon the economy of health, and will inevitably shorten life.

What disposition, then, shall be made of alcohol?

When employed internally or externally upon the human system, under any circumstances, it works "evil and only evil." Its true character is coming to be pretty well understood. Men are learning that "wine is a mocker, strong drink is raging, and whosoever is deceived thereby is not wise."

The force of public opinion, purified and nerved by the agency of the glorious "heaven-born" temperance movement, will ere long banish alcohol from the family cupboard and social side-board, and only leave it a resting place, for the *personal* use of men, in the sick room and on the communion table.

But shall it long be allowed a lodgment there? If the view which I take of impaired health, and the effects of alcohol on the human system, be correct, it follows, that if men must have their vital machinery subjected to an encounter with this potent enemy of life under some circumstances, and can have a choice of circumstances, they should by all means prefer to meet the enemy when they are in the enjoyment of the most vigorous health. And I have two reasons to offer why alcohol should not be used at the sacramental feast.

First, No alcohol was used by the Savior at the institution of the ordinance. This is evident,

1. From the fact that it was not lawful or customary for the Jews to use any fermented substance at their solemn feasts, and it was at one of these festivals that bread and wine were set apart to a sacramental use.

2. But more especially from the declaration made by Christ on the occasion—"I will not drink henceforth of the fruit of the vine, until that day when I drink it *new* with you in my father's kingdom." This language is of course figurative, but it means something. It was out of the season of vintage when the sacrament was instituted, when fresh expressed juice of the grape could not be obtained. The Savior obvi-

ously implied that that form of it was to be preferred, and doubtless the table was furnished with a preparation "of the fruit of the vine" that came the nearest to the unchanged matured juice of the grape that could be procured.

Second, "The cup," whatever it was, was emblematical of the blood of Christ, to be shed for the remission of sins; and there is probably no substance that so truly represents the life giving qualities of human blood, as pure, unfermented grape juice; and nothing that so perfectly misrepresents good blood, as alcohol. I know of nothing so cheering to the heart, delicious to the natural, unperverted taste of man as the well matured but unchanged "fruit of the vine." There is indeed "a blessing in it." The elements of simple nutriment and water are so proportioned and blended as to adapt it most admirably for use in warm seasons and warm climates. It is peculiarly fitted to counteract the effect of protracted heat on the fluids, to obviate or correct a tendency to acrimony in them, and may be used at any time or in almost any condition of the system, when nutriment of any kind would be admissible.

On the other hand, nothing is more abhorrent to a correct physical taste than alcohol, and nothing more destructive to both fluids and solids. And the time and manner of its production would indicate its unsuitableness for the use of man as a drink. It is the product of a *spoiling* or *decomposing* process. After nature has matured the grape, given it her finishing stroke, what is not used within seasonable time, is subjected to an analytical process, taken to pieces, and the ultimate principles used for the formation of new grapes, or for other important purposes.

Chemists call this decomposing process, when it takes place in a collection of grape juice, "fermentation;" and they divide it into three stages—the vinous, accetous and putrefactive.

But if the juice is left unmolested, in an open vessel, so that nature can command the elements necessary for conducting the operation without interruption, she makes but one stage of it. During the transition, a number of new substances are evolved, the most prominent of which are alcohol and vinegar. That the "fruit of the vine" is designed for internal use by man, no one can reasonably doubt; but the important question to be settled is, in what state shall it be received into the stomach?—when it is matured in the grape, in the pure expressed juice, before the work of demolition is commenced, or afterwards? If after the change has begun, in what state of the transmutation shall it be swallowed, when but a small portion of the saccharine or nutritious matter has been destroyed, and a little poisonous alcohol generated to supply its place, or when all the nutriment has given place to alcohol? Or shall we wait till the alcoholic change is over, and a less potent poison, vinegar, has been produced? Or, still later, till the vinegar has given place to a few putrid dregs? I have heard some ministers of the gospel, in distributing alcoholic wine at the eucharist, say, "Drink, O, beloved, drink abundantly *into the love of Christ*"—meaning, no doubt, that it would be safe and salutary to receive any quantity of the love of Christ into the soul; but beware how you swallow this emblem of his blood—there is a poison in it—drink *sparingly* of this. Now if they would administer the fresh expressed juice of the grape, when that can be obtained, and have it drank *new*; and when it can not, use a very good substitute, made by macerating dried grapes or raisins in warm water, and expressing the juice, they might say to the communicants, without mental reservation, "drink abundantly, both of the love of Christ, and of this memorial of his love; one is good for the soul and the other for the body."

In conclusion, I would say, if alcohol *must* be used in or about the human system, let the side-board of

the sick and the communion table be the last places where it shall be found.

TEA AND COFFEE.

These have slain and are yet slaying *alive*, and killing too, their millions.

There are but few causes of impaired health that have been more efficient than these two articles. *How* they accomplish their work of destruction is not yet well understood. These substances, like alcohol, inflict an injury on some portion of the human organism, a part of which is removable, and another part indelible till the vital forces yield up the body to the action of inorganic affinities.

Facts that have fallen under my own observation have led me to this conclusion. Many of the periodical affections that afflict women and some men too, are to be ascribed to the use of these articles—particularly periodical headache: for such affections cease upon a discontinuance of such use, when nothing else will prevent their recurrence, or, on the whole, mittigate their severity. And a resumption of that use will restore the liability to the recurrence of those affections in all their strength, and a revival of the former attachment to the use of those narcotics, subject to the same modifications or changes in the vital condition of the system by which the alcoholic appetency is affected.

Chemical analysis is showing that the proximate principle of tea and coffee, on which their activity depends, is essentially the same—and experiments by Dr. Burdell and others prove that this substance acts powerfully on the nerves, and facts warrant the belief that the action of tea and coffee is primarily upon the brain and nerves, affecting directly the sensibility, and inducing that very general and troublesome phenomenon of impaired health—irritability.

But I will not dwell long upon these poisonous substances, either in theorizing or arraying facts, from a conviction that it would be but to little purpose. The pernicious practice of tea and coffee drinking will yield to nothing but the force of public sentiment; and attempts to arouse and strengthen this, lack as yet one advantage, which is available, and wielded too to much effect, in the temperance reformation, to wit, a correct (or tolerably so) public sentiment with regard to the immorality of drinking alcohol.

Now the advocates for the use of tea and coffee, when pressed beyond the precincts of all rational defense of such practice, console themselves with the reflection that it is not sinful.

Some twenty years ago, breakfasting one morning at a friend's house by special invitation, with a very learned and eloquent judge, and withal a good and pious man, who was providentially a guest of the family, the beverage of the table became a subject of conversation, from the judge's observing that a glass of cold water was served to me in lieu of a cup of coffee. And after some very pleasant, good-natured complimentary remarks, the judge passes his cup over for a fresh supply of the "good creature," and says, "well, Mrs. S., there is one consideration that may be urged in favor of tea and coffee drinking—*it is not an immorality.*" Not an immorality! In the name of conscience, what constitutes an immorality? One would think that so large a diversion of the Lord's money that is now made for this object by professing Christians, when it is so pressingly called for by the Master for benevolent purposes, were a sin, if nothing else could be urged against it. And is it no wrong to injure the body? But waiving these considerations, I venture the assertion—and without any fear too that future investigations and revelations will reverse the judgment involved in it—that tea and coffee do more to alienate natural and moral affection, pervert judg-

ment, weaken the moral sense or force of moral obligation, and to disturb the peace and harmony of families, communities and nations, than alcohol does. I do not of course mean that in individual cases alcohol may not transcend tea and coffee in its devastating power and effects, but in the aggregate of malign influences, exerted directly and indirectly, tea and coffee will not yield the palm to alcohol.

That "slaves to the teapot" are not easily set free from their yoke of bondage, the following extract, taken from a British paper, is good evidence.

"TEA AND COFFEE DRINKING.—The London Lancet gives an account of a meeting of the London Medical Seciety, at which a discussion arose concerning the effects produced by the habitual use of tea and coffee. A paper was read, the author of which condemned both these articles in decided terms, and had kept a record of many cases tending to confirm his views. The President declared, in general, that he coincided with the writer in his opinion. Dr. Proctor contended that the use of tea might be injurious to dyspeptic persons, or to other persons in the morning; his own experience had taught him that it was beneficial in the evening. Dr. Shearman thought that there were few members of the society who had not derived material benefit from these much slandered fluids. Dr. Uwins entertained the same opinion. He declared himself a "slave to the tea pot," and thought the substitution of tea for the more substantial diet of our forefathers, an advantageous change.

Dr. Cholmondely, (pronounced, as Dr. Cox tells us, Chomley) believed that whenever tea produced any ill effects, it was owing to the use of uncommonly strong solutions. He was acquainted with one case in which it afforded uniform relief from severe headache. Dr. Whitney was of the same opinion. His experience was at war with that of Dr. Proctor, because he found the use of tea highly beneficial in the

morning, and pernicious in the evening, when it was apt to produce a trashy kind of sleep.

The writer of the paper, Dr. Cole, declared that if gentlemen would observe the effect of tea on their patients, instead of themselves, they would change their opinion. Dr. Shearman suggested, that the mischief, when any was experienced, was owing to the sugar mixed with the solution."

What a medley of views respecting tea and coffee drinking, among the grave Doctors of the metropolis of the world! A fair specimen of the agreement of Doctors on medical theories and medical facts generally. One Doctor was acquainted with a case in which tea "afforded uniform relief from severe headache!" What stupid old woman is there that cannot say as much as that in favor of tea?

There seems a strange infatuation in the views of medical men respecting the effects of unnatural excitants on the human system.

At a semi-annual meeting of the Medical Society of New Haven, C. Y., Ct., Dr. K., who is head and shoulders above many of his fellows in mental and professional endowments, said that he did not believe that coffee was injurious to health, because he once recovered from an illness while using it! He had for some time abandoned the use of coffee on account of ill health, but while journeying, finding it inconvenient, from bad water and other circumstances, to get along comfortably without it, resumed its use, and soon regained his health.

What Doctor has not known persons get well while using arsenic, mercury and all sorts of poisons; and are we therefore to conclude that such poisons are not injurious—at least to persons in health—even under old views of disease?

A desire for or attachment to substances for whose use men acquire a habit, is occasioned by one of two diametrically opposite reasons: either,

First, For their adaptedness to use in the animal economy, by supplying the requisite material for building up and sustaining the body; or,

Second, On account of their adaptedness to injure and destroy the body.

A desire prompted for the former class of substances may be called a natural, healthy appetite; while a fondness generated for the latter class of substances should be regarded as a morbid appetency, or unnatural desire or craving, growing out of a depressed, painful state of the sensibility. One says, give me bread; the other, give me rum, or something that will play upon the law of stimulation—rally the powers of life. The first is the simple, unerring voice of nature; the second a desire to subdue or keep under the lashings of the physical conscience. The attachment to substances, in either case, will be in proportion to their ability and tendency, under the circumstances in which they act, to accomplish one or the other of these objects.

To which of these classes of substances do tea and coffee belong? That they are powerful for one or the other of these purposes cannot be denied. Those who are in the habit of using them know very well that they produce an effect of some kind. And, "how is it possible that tea and coffee hurt me, when they *seem* to do me so much good," many are ready to exclaim. That tea and coffee are mere poisons, and produce their apparent good effect and positive evil on the same principle that alcohol, tobacco, opium, arsenic, prussic acid and other poisons do, may be argued,—

First, From the fact that they contain no nutriment, possess no property or quality that can be advantageously wrought into the human fabric, or used to profit in any of its operations or movements. That tea affords no nutriment is not questioned; and if nutriment can be obtained from coffee under some prep-

arations, it furnishes none in the usual way of preparing and using it. And even if it did afford as much nutriment as an infusion of an equal amount of corn, wheat, barley or any other nutritious substance, it would not possess the charm for its votaries that it now does, simply on that account. Its fascinating power is to be found in its exhilerating or stimulating quality.

Second, They are set down and treated as narcotic stimulants by writers on materia medica, and their effects justly entitle them to that rank.

I was acquainted with two women, who, for a number of years, made a free and habitual use of opium, and there were a number of points of very striking analogy between the effects of this poison in these cases and what I have observed in inveterate tea and coffee drinkers.

First. The attachment of both parties to their respective health destroying drugs was similar. Neither could or would do without their exhilerating and quieting effects—they "felt so much better" under their influence.

Second. Both kinds of poisons alike broke down the energies of the nutritive apparatus, and seemed at times to supply the place of nutriment. The opium eaters could take a large pill of opium, and work on the strength of it, as they said and supposed, for a number of hours.

Tea and coffee drinkers experienced similar effects from a free use of their favorite narcotics.

Third. The inordinate consumers of tea and coffee, equally with the consumers of opium, were subject to most *exquisite* periodical repairing operations. The two kinds of poisons acted upon and injured different parts of the system, but the effects of both alike called for recuperative measures. In the renovating process from the effects of opium, the most prominent symptoms were an awful, deadly, sinking sensation, and terrific spasms, alternating and blended with the

sinking turns. The spasms affected first and most the muscles of the chest and abdomen, but occasionally the spasmodic affections became general, producing complete tetanus.

The periodical headache, hysterical fits and other nervous paroxysms and affections, that mark the progress of the devastating effects of tea and coffee, are too common and well understood to need a description. Persons who wish to know which injures them most, tea coffee, rum, tobacco, or whatever stimulants they may be in the habit of using, have only to decide which touches their sensibility the most to their liking—for which they have contracted the strongest appetency.

As they descend in the current of intemperate use, (and there is no temperate use of poisons) the ability to bear up under the effects of either, by that portion of the system on which it inflicts the greatest injury, diminishes, and consequently more of the same exciting substance will be required to keep the action above the point of distress, until the "vis medicatrix naturæ," or remedial effort of nature, has in some measure restored the former state of things.

TOBACCO.

That this is a poisonous substance is fully admitted. Vauquelin obtained a peculiar principle from this plant, in which its active properties reside, which was colorless, yet had the peculiar taste and smell of the plant, and was exceedingly poisonous.

Indeed tobacco in any form is very poisonous to man and requires great caution in its internal use to prevent destruction of life. I once ventured to use a very small quantity of an infusion of the common paper tobacco, by injection, in a protracted case of bilious cholic, well advised at the time that great caution was necessary, inasmuch as lives had been sacrificed

by that mode of exhibiting tobacco. I thought I was very cautious. A small quantity only of a weak infusion was used, but no sooner had it reached the bowels, than the patient, who was a strong, muscular man, trembled like an aspen leaf in every fibre, turned pale, a cold clammy sweat exuded from the surface of the body, and he seemed for a while on the point of giving up the ghost.

Facts like these, and they are abundant, prove that the active principle of tobacco takes hold at once of the seat of life—acts directly upon the nerves, which are the transmitters of vital energy.

The simple fact that it is so difficult for those who have had the misfortune of a long and intimate association with tobacco to part company with it is proof positive that it is a rapid exhauster of the excitability.

Men who will descant with great force and eloquence on the pernicious practice of rum drinking, and offer a thousand and one strong reasons for abandoning the habit, will turn round and tell you with much seriousness, that they *cannot* give up the use of tobacco. What wonder is it that the *weaker* vessels should cling pertinaciously to tea and coffee drinking?

That alcohol, tea, coffee, and tobacco deserve to be thrown together into the same category, and held in common as poisonous substances, prejudicial in their operations and effects on the human system, there is ample authority for believing and asserting.

The following letter, from among a mass of documents of a kindred character, is directly to the point, and also favors the general position which I hold in regard to the nature of disease. The letter was written a number of years ago, in answer to a series of questions addressed to physicians in a circular by a temperance committee. As the letter is all good and appropriate to the general object for which this book is published it is given entire.

"From Joseph Speed, M. D., of Caroline, Tompkins Co.

'I am a physician, and have been no inattentive observer of the effects of intoxicating and other unnatural substances, on the human system, in producing disease and death.

Where mal-formation does not exist, health is the natural state of man; and disease is unnatural, and brought on us usually by our own imprudencies.

The usual imprudencies are improper food and drink and deficiency of exercise.

There is nothing in the formation of man, there is nothing in his experience, that shows that nature designed that he should use, in health, any stimulating substance of any description, that does not possess *nourishment.* On the contrary, every thing of the kind is injurious in health.

I am now far advanced in my sixty-third year. In early life I lived as many thoughtless young men do, to eat, drink, and be merry. Few restraints were imposed on my appetite by myself, or by those who had the care of me, until I attended a course of medical lectures, delivered by Dr. Rush, in 1794. This great and good man's memory must be dear to every one who has attended his lectures. The earnestness and solemnity with which he warned us against the evils of spirits, I can never forget; and from that time, I resolved to die a sober man. It is remarkable, sir, how little was said against the use of intoxicating drinks in those days. I do not recollect that either of the other professors in the college said a word on the subject; and, so far as I can remember, it was rare for a parent to admonish his child against this deadly evil—nay, he often sweetened it, to make it more palatable to his taste.

Having determined, for myself, to die a sober man, I used intoxicating drinks of every kind *moderately*, as it was called; and in consequence of it I probably had sickness more moderately than I otherwise should have had. Knowing, from long observation, the dread-

ful evils of intemperance, when our temperance reformation began, I early and joyfully joined the temperance society, and abstained entirely from the use of distilled spirits. It was not long before I was convinced of the propriety of adopting the same course with wine, and beer, cider, and all fermented drinks. It was pleasing to feel, how, step by step, I improved in health, as I made each successive sacrifice. Encouraged by these beginnings, and knowing that there were other things injurious to health, which I was practising, I determined to take a new start in the path of reformation, and successively gave up the use of strong, high-seasoned food of every description—my tobacco, yes, my tobacco, the idol of my life, which I had used for nearly fifty years, and without which life seemed a burden; yes, that dear, soothing comforter of my life—that vile, filthy, health-destroying weed had to go; and, not very long after, my tea, my coffee. Yes, my much loved coffee had to go too; but much as I loved it, our separation produced a pang but trifling compared to the loss of my dear, *abominable, filthy tobacco.*

I know, my dear sir, that some will say, "you poor, deluded fanatic; you have deprived yourself of all the comforts of life; and what have you worth living for?" I have *health*, such health as men never enjoy who do not lead a uniformly temperate life. For years I have scarcely known what an ache or a pain is; and for years I have not had a cold worth calling a cold. My appetite is *always* good. I have a great pleasure in eating whatever is suitable for man to eat, and I have lost all desire for any thing but the plain, nourishing food on which I live. I feel as if I had gone back many years of my life, and have the ability and disposition to perform much more labor than I had seven years ago. Here is what I have that is worth living for; and I will ask those inquirers, in turn, what do they enjoy that is more worth living for? Do they

eat the luxuries and fat things of the earth, and drink the fruit of the vine in its fermented and joy-inspiring state? I use my plain food, and plain water, with as much pleasure and gratification as they; for I have tried both, and speak from experience, and know that their gratifications are often followed by a bitter pang, and that mine are not. Indeed, so far am I from suffering from my mode of living, that it has relieved me entirely from the common sufferings of life, to which improper living exposes us. I used to suffer much from head ache, sick stomach, want of appetite, irregularity of the bowels, restless nights, and a most distressing affection of the heart—a disease of which organ has become one of the most powerful and alarming diseases of our land; and brought on, perhaps, nine times out of ten, by a deficiency of exercise, and the use of stimulating food and stimulating drink. Of all these I have got cured, by abandoning stimulants and improper food.

You ask me, sir, respecting the experience of others on this subject. To tell you all the good effects I have known would need a volume, and I should not know where to begin. I will, however, state one case. My neighbor, for whom I had often prescribed for a head-ache, which had seriously injured his health, and which he had had, with only one exception, once a month, for more than forty years, applied to me, two or three years ago, to try again and do something for him; for he suffered excessively, and his looks showed it. In fact his health was seriously declining. His attacks lasted him a day or two, and he always had to sit up *one whole night* in his chair—so severe was his pain at every attack.

I knew he was fond of rich food, loved coffee dearly, and his tobacco still more, and used them very freely. I told him that I had trifled with him long enough, I would give him no more medicine, he must cure himself; and that he must abandon his coffee, his

tobacco, and all high seasoned food, and live upon milk and light vegetable diet, and eat meat sparingly but once a day. He tried to reason me out of it, as he said he had the head-ache before he used tobacco or coffee. I told him it mattered not, his situation was serious, and he must follow my advice. He did so; left off all; and for six months had but one attack of head-ache, and that produced by a day's ride on a hard trotting horse, to which he had not been used. In fact he became a new man. He has since returned slightly to his old living, and tells me he has slight returns of head-ache.

Here, sir, is one case, among thousands, of the injurious effects of stimulants, and here is the simple cure. It matters not whether the stimulants be distilled spirit, or fermented liquors; they all, without exception, endanger the health of man, produce disease of the most fatal kind, and destroy more lives than sword, pestilence and famine. And now, oh my country, arise in your might, and cast away those destructive things from your borders. Ministers of the holy gospel, cease not, day nor night, to bear your testimony against them. You know not what a powerful influence some of you exert in favor of *alcohol:* banish it, I beseech you, from all your drinks. You acknowledge that temperance societies prepare the minds of men for our holy religion. Let me implore you to throw no stumbling block in their way. Young men of my country, I am old, and you are young. To you are committed the destinies of our country. As you value its freedom and happiness, fly to its rescue. We have brought the ark of temperance in sight of the promised land, and we will rely on your patriotism, your virtue and heroism, to conduct it thither.'"

It was my design to say something on the impairing qualities of spices, mustard, horse-radish and this class of irritants generally, which are doing much to weigh down poor, suffering humanity, and bring it into a

complaining, diseased condition; but having occupied more space with the articles that have been considered than was intended, I will pass on to a brief notice of

ANIMAL FOOD,

as a prolific source of impaired health. I will put what I have to say on this subject under two heads—*Theory and facts.*

Theory.—The great variety of vegetable substances procurable by art furnishes every proximate and ultimate principle or element necessary to the composition of the human system. Animal bodies, edible by man, are themselves the product of vegetable nutriment, and, in the metamorphic process, is there any new principle generated essential to the perfection of the bodies of men? What advantage should I derive from employing the ox and the swine to work over vegetable nutriment and furnish it to me at second hand? Suppose they are constantly under my eye while they are metamorphosing vegetable into animal matter, so that I am satisfied that they use nothing but good material—devour no unclean thing—to be more definite, suppose they are provided with bright sound corn, wheat, potatoes, turnips, apples, in short, with various kinds of good vegetables and choice fruit, such as I select for my own use, and know to be well adapted to make bone, muscle and nerve,—how are these substances to be improved, become better adapted to the purposes just specified, by being manufactured into beef and pork, before they are submitted to the action of my nutritive apparatus? That a great change would be wrought in them by such a preparatory process is undeniable; but would it be for the better or the worse, is the question.

There are three particulars in which it is supposed that metamorphosed vegetable matter can better sub-

serve human life, as a part at least of man's diet, than the primary material.

The first is, that, having been once animalized, it is more readily and easily incorporated into living organs again.

The second is, that it has been condensed, the nutriment is more concentrated, contains "*multum in parvo*," and would be less burdensome to the stomach than more gross material.

And the third particular is that animal food is more excitable or stimulating than vegetable.

First, It must be admitted that animal nutriment is turned over again into animal fabric by a shorter and easier process than vegetable nutriment can be manufactured into such fabric; and on that account it is objectionable, at least to individuals in ordinary health; for it is thereby adapted to make indolent, feeble organs, or be the occasion of laxity and weakness in them.

The nutritive machinery, consisting of the digestive and assimilatory organs, needs all the exercise, to keep it in a healthy vigorous condition, that it would get in carrying the crude vegetable nutriment through all the stages of digestion and assimilation to organic life.

Second, It is denied, on the authority of chemical analysis, and other facts, that animal food in any form, contains a larger proportion of nutriment than some vegetable substances do; and even if it did, it could lay no claim to superiority over vegetable diet on that account, as there are many vegetable substances that contain too large a proportion of nutriment to be used without dilution.

Third, That animal food carries with it into the system an exciting quality, is too obvious to be denied, and it is on this account mainly that I object to its use. This stimulus constitutes no part of the nutriment, though it is intimately blended with it, and by a connection inseparable by any artificial process

hitherto discovered. It is common to hear men speak of stimulating and unstimulating diet. Now it should be well understood that proper diet or simple nutriment and stimulus, are two distinct things, as directly opposite to each other in their mode of action and effects on the system, as right is from wrong. No matter how intimately mixed they may be when received into the living laboratory, after being subjected to vital analysis, each takes its own course, does its own work, and has its own results. If grape juice partially fermented, (new wine,) or the pulp of apples, grain, or of any saccharine matter, in that state, be passed into the stomach, the unchanged nutriment will be converted into chyle, and sent abroad among the secretories to be used in building and repairing operations, while the alcohol is set afloat to do its horrid work of destruction.

Flesh meat is vegetable nutriment animalized, contaminated with a poisonous irritant, contracted in its transformation from primitive purity, and rendered increasingly virulent by atmospheric action, after the flesh has parted with life.

Dead animal matter is as subject to the law of decomposition, the action of inorganic affinities, as vegetable matter, and no doubt there are varieties of stimulating substances developed in the progress of its decomposition, as there are in the decomposition of vegetable matter. And it is a matter of surprise that scientific researches or vulgar empiricism, have not made more discoveries in this department of dietetic improvement—or rather torture—for the benefit of the epicure. Dr. B., formerly a medical pupil of mine, told me that while he was once a resident in a public house for a number of months, a man was in the habit of putting up there who would always carry his own meat with him, in his saddle bags, such as fowls, pieces of beef, and the like, for his own use, for he would eat no animal food, until it got to be about so *mellow*, as it *relished* better then than it did

when fresh killed. "No man having drunk old wine, straightway desireth new, for he saith the old is better."

When this medley of semi-assimilated nutriment and corroding irritant is received into the stomach, it also is taken to pieces, and the nutriment made the most of that can be under the circumstances, while the animal alcohol is set free to play its own game. So much for theory, now for sustaining

Facts.—I am not going over the common ground of argument for judgment against meat diet, for a number of reasons which I will not stop to detail, but will simply offer a few of the evidences that have fallen under my own observation, of the analogy between the effects of the *moderate* use of alcoholic liquors on the human system, and those of animal food.

First, Animal food creates a feverish diathesis in common with alcohol, evidences of which are,

1. An impaired state of the respiratory function. Persons who use alcohol breathe more, consume more oxygen in a given time, than the same individuals do when they make no use of it. The same is true respecting animal food. This has been proved by the diving bell. A man can live longer under water in a diving bell, with the same quantity of air when using vegetable diet, than he can under the influence of flesh meats. And he can also subsist longer with the same quantity of air by abstaining from the use of alcohol, than by using it. And those who have abandoned the use of animal food, find a very marked and comfortable change in their breathing, especially when they walk fast or ascend a hill.

2. The pulse is rendered more frequent and irregular both by alcohol and meat.

3. A feverish heat is generated in the system in virtue of both alcohol and meat; persons are made more thirsty by the use of both substances.

4. Both substances equally induce what is called the digestive fever, which embodies all the symptoms of fever in a moderate degree.

Secondly, Alcoholic drinks lay the foundation for occasional disturbances in the system, of different kinds and grades, as bilious bowel affections, &c., &c., and so do flesh meats. In the production of colds, animal food is far the most efficient. This point is established incontestably by well tried experience.

Thirdly, Animal food tends quite as strongly as the moderate use of alcoholic liquors to weaken and disturb the balance of action between the secerning and excerning systems of vessels, by which some persons are made leaner and others fleshier than they should be.

Fourthly, With about equal potency, alcohol and flesh meats weaken the force of the capillaries of the system, on which healthy action so much depends. This is a species of evidence that comes within the observation of every person, for it is exhibited by that prominent mirror the face, as was shown in the last section, on the analysis of symptoms, under congestion. As is represented in that article, when the body is in a healthy state, and the little, minute vessels, which constitute a large part of the body, are strong and active, they keep themselves habitually so contracted that nothing but the thinner, pure, nutritious portion of the blood can pass them; the coarser red globules, which serve no purpose in the nutritive process, and which heighten the color of the parts where they circulate, are prohibited an ingress or passage. Now whatever weakens these important, yea, indispensable little agents, so that they are habitually obliged to dilate sufficiently to carry the coarse globules of blood, and thus give a man, woman, or child a red face, is sapping the very foundation of permanent health and long life. Alcohol and animal food alike perpetrate this high-handed mischief. Many

individuals can now be found in the ranks of alcoholic teetotalers, and true too to their pledge of total abstinence from strong drink, who nevertheless carry a blooming cheek, to which nothing but a pure vegetable diet will give a safe and salutary bleeching. There are some cases of flesh meat paintings within my knowledge, that extend from the tip of the nose to the extreme border of the ear, in regard to which I would defy my very worthy and highly esteemed friend, Dr. Alcott, whose diagnostic skill in such matters is not surpassed,* to decide by the looks, whether they were put on by a "flesh brush," or an alcoholic one.

Fifthly, A flesh diet, in common with the use of strong drink, impairs the tone of the nutritive apparatus, by which its ability to work up raw material, and manufacture it into sound, well-finished vital fabric, is diminished, and of course the appetite or call for food is satisfied with a less quantity of the raw material. This fact has given rise to the opinion that animal food contains more nutriment than vegetable.

Sixthly, I will notice but the following evidence of the similarity of the effects of animal diet with those of the use of alcohol, from the mass of others that might be added. The total abandonment of an habitual use of animal food is attended with all the perplexing, uncomfortable, and distressing difficulties that follow the giving up of an habitual use of strong drink. A change from one kind of simple nutriment to an-

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*About two years after I had quit the use of animal food, Dr. Alcott made me a visit, after an interim of something like two years. Immediately after the customary salutation of "How do you do?"—before the cordial shaking of hands was relinquished—my friend exclaimed, "I am glad to find you have left your flesh pots." My countenance was the only reporter in the case. The change discovered was attributable to nothing but a discontinuance of meat diet, for I had some years previously abandoned all use of alcoholic drinks, tea, coffee, spices and butter.

other has no such effect. It is only when the constant use of some stimulating substance is abandoned, that such difficulties are experienced.

Some of the advocates for the moderate use of some kind of internal stimulants, contend that all the capabilities of man, as a physical and mental being, cannot be fully developed without such provocatives. This is a very *unnatural* view of the subject, and I am confident that facts do, or will, clearly show it to be a *false* one. Nature no more needs goading up to the discharge of her duty to the full extent of her ability, "sick or well," than an ambitious woman does.

BUTTER AND CHEESE.

I did not connect an examination of these articles with that of animal food, because I do not regard milk, from which they are derived, as partaking as much of the nature of animal as of vegetable nutriment. Fresh drawn milk consists essentially of the proximate principles of vegetable sustenance, prepared by animal organs expressly for helpless, toothless animals, from vegetable matter. That butter and cheese possess poisonous properties, or properties that are capable of exerting a "disturbing and disconcerting" influence if admitted into the human system, I will rest on *a priori* argument, or analogical deduction, and facts.

Analogy.—Matured grapes, apples, corn, rye, barley, &c., &c., are nutritious and innocuous. When subjected to the process of fermentation, until a portion of their nutriment is converted into alcohol, their character is materially changed, and if taken into the stomach in this condition, they carry, along with some nutriment, a destructive principle into the system. Now, fresh drawn milk, made from good material, by healthy organs, is well adapted to the purpose for which it was designed. It is now finished. Nature

has done all she could to fit it for the sustenance of animal life, and any change that is wrought in its constituent parts, or elementary composition, so far unfits it for that purpose.

To produce butter and cheese, milk must undergo a great change. These substances possess properties essentially different from anything found in new milk. Milk is soluble in water in all proportions. Butter and cheese are no more soluble in water than tallow is; and all their sensible qualities are essentially different from those of new milk. From parity of reasoning, therefore, we might conclude that they are less nutritious than the unchanged article; and, that they possess an active poisonous principle is sustained by

Facts.—Physicians have ever known that butter and cheese predisposed to and aggravated inflammatory affections, eruptions and sores, and have prohibited their use in such cases. I used to be much troubled with a little, painful, spherical ulcer in my mouth, commonly called "canker sore," which parted with me on my giving up the use of butter and cheese, (which was a number of years previous to my turning my back upon animal food,) and has never visited me since. And I have known many receive very marked benefit from the disuse of butter and cheese, on many accounts, particularly when they were troubled with eruptions and sores. Butter and cheese both possess more of the belligerent property, in the same quantity, than any form of animal food. Persons who relinquish the habitual use of meat, can get along very comfortably by making a small addition to their allowance of butter. All constitutions are not affected alike by the use of butter, nor are they by animal food, tea and coffee, or any other poison. Some will hold out a great while against the action of a number of poisonous substances, and that in no stinted quantity. It has more than once been said to me, "If tea,

coffee, and tobacco, are poisonous to the human system, how happened it that the Rev. Dr. M., (of D.,) lived to such an advanced age, when he used them all for a great many years?" I made answer by pointing to the children and grand children. The latter have been quite numerous, and their lives have "dwindled to the shortest span," and that not for the lack of the health-inspiring influence of tea and coffee.

But I must pass from the consideration of internal irritants or poisons, to a brief notice of a few of the other sources of impaired health.

TIGHT LACING.

This unnatural, barbarous, and cruel practice, stands "openly acknowledged" as a prolific source of impaired health. By diminishing the cavity of the chest, it lessens the size, power and scope of action of the essential organs contained within that cavity. It obstructs the free circulation of the blood through the lungs, and also the free admission of air into the numerous air cells of the lungs, thus very seriously curtailing the benefits to be derived from giving air full access to the column of dark venous blood, which has been returned to the heart, and is circulated through the lungs for the very purpose of being itself purified, and getting charged with the principle of purification and vital warmth, that it may go forth and dispense these essential elements to every part of the system.

This monstrously absurd practice of constricting the chest, impairs the function of the heart, both as a forcing and suction pump, producing a feeble, languid circulation, outward and inward. And by compressing the large muscles of the chest, it diminishes their energy, occasioning a stoop of the upper portion of the chest, projection of the shoulders, and twisting of the spine. The liver also, a very important organ, shares largely in the common evil—indeed, there is not

a single function of the whole body, however small, that does not *directly* feel its withering influence; how then can we estimate its indirect and more remote consequences? This is indeed an iniquity that is visited "upon the children unto the third and fourth generation."

A small compression of the chest of a strong man, by a vest moderately tight, is found, by a careful admeasurement of the air inhaled for a given time before and during the compression, to diminish very considerably the quantity of air received by the lungs while under this very partial restraint. It is not, therefore, surprising, that the system of corseting, which is brought to great perfection, and applied extensively in all civilized society to the weaker vessels, should be so successful in breaking down physical constitutions, inducing disease, and shortening human life. If there were no other deleterious influences brought to bear upon the economy of life and health, and nature could sustain herself under this, and prevent the entire extinction of the race, it would alone be good evidence of a strong conservative tendency in the power and laws of the vital economy.

"Because sentence against an evil work is not executed speedily, therefore the heart of the children of men is fully set in them to do evil."

DEFECTIVE EDUCATION,

Or Wrong Training of the Human Species, is chargeable with no small amount of their physical derangements. "Equality" among the members both of the physical and social systems of men, is essential to the highest degree of healthy action, harmony and happiness. If, therefore, we would live for posterity, —lay a broad foundation for the elevation of our race, we must adopt that system of education for our children which is adapted to secure a symmetrical devel-

opment of the different parts of the body. And if phrenological acumen can discover the relative state of the different departments of the brain, it should be made available, not for the purpose for which many would now use it, to discover what a child seemed the best adapted for, by a particular prominence in some points of the mental machinery, and urge on the education of the child in that direction, but for a directly opposite purpose—to ascertain what parts are most in advance, that such may be held in check, until the other parts can be brought up, "that there may be equality." This course should be pursued in relation to every department of our physical being. If any parts have become obsolete, they should be looked up and put under a course of training that will reinstate them among their fellows, in the rank originally intended for them. For example, we will take the organs of tune. Every individual of the human family has these organs in some shape or condition, and though in a majority of cases they have been neglected, and are now in a dilapidated state, yet they are still susceptible of improvement, and may be made to advance and take their proper position in the vital corporation, and fulfill their original high destination—if not in the identical individual, it may be accomplished in his representatives in future generations. According to present views and practice of rearing youth, the end here recommended to be aimed at, and which the law of equilibrium is always striving to accomplish, is directly thwarted.

Aside from errors in diet, dress, &c., &c., what is technically called education is exceedingly defective for the purposes of health. In a large majority of cases, there is not only no attention paid to the equalization of development in the mental machinery, but no part of the brain, the seat of both physical and mental life, is sufficiently cultivated. These individuals are like hulks of vessels, with stone ballast and

light sail, poorly adapted to the voyage of life, and withal not as likely to endure adverse gales and tempestuous seas as ships in a better trim, for it is a well established fact, that educated men, other things being equal, live longer than uneducated men. On the other hand, there is a portion of the race, who, without any reference to harmony in the cultivation of the mental faculties, or due proportion between the brain and other parts of the body, have the hot-bed principle of culture applied to the mental apparatus, even where that is congenitally precocious, and in a few years, like crank-built and full-rigged vessels, that have more sail than ballast, they are overset and lost.

I will illustrate this by a melancholy and striking instance. In my native town were two lads, twins, of great promise, only children of their parents. At twelve years of age, they were well fitted in all the requisite studies for an admission into the freshman class of Yale College, but according to a standing rule of that institution, could not enter until they were fourteen. Before that period arrived, it was obvious that their minds were reeling. They lived corporeally a few years, but were complete mental wrecks. These youth were the offspring of parents of highly cultivated intellects and frail bodies, particularly on the part of the mother, and they began life themselves with mental organs much in advance of the other organic portions of their physical systems. If they had been trained in accordance with correct physiological principles, they might have lived to advanced age, and have been blessings to their friends, and ornaments to society.

The general method of educating youth that prevails in most of our colleges and public seminaries, in classing together youth of unequal mental and physical ability, and requiring of each the same kind and amount of mental acquisition, is as irrational as it would be to put the same youth three or four times

daily on the tread-mill, and make them grind each his bushel of corn, irrespective of weight or strength.

UNGOVERNED PASSIONS, ETC., ETC.

Indulgence in anger, ill will, envy, grief, sorrow, and the like, as well as carping care and corroding anxiety, disturb the regular and healthful administration of the vital economy, and occasion defective or diseased action, and a shortening of life.

Excessive bodily exercise in some cases, and deficiency of it in others, and especially the lack of a due observance of suitable seasons and hours of rest, are very fruitful sources of waste of vitality.

A tendency to septenary periods, observable in many febrile affections, concurs with experience in showing that man's physical well being demands a seventh day's rest, as well as nocturnal ones, for the full replenishment of the stock of vital energy. And when the time shall have arrived predicted by Jeremiah, when "they shall teach no more every man his neighbor, and every man his brother, saying, 'Know the Lord:' for they shall all know me from the least of them unto the greatest of them, saith the Lord," the openings of Providence will probably indicate the observance of the Sabbath as a day of rest for the whole physical man.

In this connection I will barely name a cause of impaired health, all allusion to which I would fain avoid, if a sense of duty would justify—*an abuse of the sexual functions*—unquestionably the most prolific single source of impaired health and brevity of human life, and more formidable to the reformer than all others united, because so deeply entrenched in the effeminate views, feelings, sentiments, language, customs and practices of the fashionable, or most influential portion of civilized society. By *abuse* of the sexual function, I mean all other use than that for

which it was obviously designed by the Parent of the human family, in the constitution of "male and female"—*the legitimate propagation of the species.*

Sleeping in warm feather beds, and in juxtaposition, is debilitating and injurious *per se*, and when indulged in by the sexes becomes accessory to excessive venery.

Living in warm rooms, bathing much in warm water, indulging habitually in the use of hot food and drink, and the like, are enervating and lay a foundation, both directly and indirectly, for impaired or diseased action.

CONTAGIONS.

These are frequently sources of impaired health. Under this head I include all the subtle effluvia, or poisonous matters, generated by the decomposition of dead animal or vegetable substances, or the defective action of living organs, applied to the living human system, under circumstances in which they will take effect.

Some contagions are denominated specific, because they produce in other individuals the same general train of phenomena or symptoms, as the one from which they respectively originate; as the virus, or contagion of small pox, measles, &c. Specific contagions are limited in their operation to particular parts of the body, and when these parts are barred against their action, there is no more that they can do. How they are barred out by one operation, is not yet within human ken. Where the susceptibility of the obnoxious parts is open to the action of the contagion, the effect, or injury to be produced by a given amount of virus of a specific kind and force, will depend on the vitality of the parts, and the circumstances under which it acts. Some men are naturally and habitually invulnerable to particular contagions; and some men are proof against the action of a contagion at one time, and liable to be affected by it at another time.

I wish here to call the particular attention of the reader to the manner in which specific contagions are generated and perpetuated, for the following reason: Many persons who have examined my theory of disease, and given in their adherence to it in the main, find some difficulty in reconciling this theory with contagious diseases; for, say they, there seems to be wrong action—something that keeps alive the contagion—a poisonous agent.

Contagions are not kept alive and propagated from one individual to another, and from one generation to another by a kind of fermentative process; nor is the same identical matter kept alive by any process, any more than alcohol or any other poison is. A quantity of contagion is received into the system by inhalation or absorption, fastens upon those tissues that are obnoxious to its action, and expends itself there, and this is the last of *that* contagion.

The capillary secretories that have been injured, fall in their action until they secrete a new virus that is capable of exerting a poisonous influence upon similar parts in its turn. This is the best that the injured vessels can do. They fall no lower in their action than want of power obliges them to.

When they can stop short of secreting a poison, they do so. This however depends upon the virulence of the contagion that acts upon them. The kine pock contagion, which is but a modified form of the small pox virus, robbed of much of its malignity, by having been subjected to the transforming influence of the more vigorous and energetic secretories of the cow, does not lower down the action of the vessels on which it wastes its force in the human subject, to the point of secreting an effluvium that is capable of affecting another person by inhalation.

Many if not all of the secretories of the human system, may become so vitiated by a variety of causes, other than the action of specific contagion, as to prove

poisonous or infectious to others. I will state a very marked case of this kind, which occurred in Derby in 1838.

A. W., sixty or more years of age, declined and died with alvine evacuations, which, for three or four days previous to his death, resembled in appearance liquid tar. Numbers who attended Mr. W. in his sickness, became seriously affected with bilious affection, particularly the widow and one of the sons;—the latter was considered dangerous for a number of days.

Impaired health, or diseases from disordered secretions, are much more rife than is commonly supposed. The secretories from the lungs of persons declining with pulmonary consumption, not unfrequently proves destructive to others, particularly to near connections, who attend much upon the sick, and are themselves strongly predisposed to consumption; so that when this diathesis is hereditary in families, and one case of fatal declension occurs, others are very apt to succeed; and in some instances whole families, consisting each of a number of individuals, become nearly or wholly extinct, within the compass of a few months by means of pulmonic effluvium, which would have no more effect upon sound lungs, than small pox would upon constitutions that are shielded from its action.

Vegetable substances, while undergoing decomposition under some states of the atmosphere, send forth noxious effluvia that sometimes produce extensive and distressing sickness and death.

The same principle of action, and connection between cause and effect, that was pointed out in diseases resulting from animal contagions, holds in these cases. The hostile principle in the vegetable effluvium, as in the animal, is governed in its action by elective affinity, or has a choice of parts on which to expend its force, and makes no impression, directly,

on other parts; so that one individual may be fatally vulnerable at this point, and yet in every other respect, and apparently in all respects, have a good constitution, and be enjoying good health, while another individual, with a slender constitution and in feeble health, may be invulnerable at the only point through which the enemy can make an inroad, and remain unscathed amid the most desolating pestilence. In most, if not in all cases where epidemical diseases prevail ever so terrifically, as well as in the prevalence of animal contagions, there are constitutions that stand erect, perfectly defensive against the most subtle and envenomed shafts of the enemy; showing that there is such a thing as having the standard of health elevated above the reach of what now prove causes of derangement and death to multitudes.

There are many other causes of physical derangement and suffering beside what have now been considered, that have a share in crushing poor humanity, but enough have been brought into notice to prove that the economy of life has good and sufficient reason for making the complaint that she does, and is rather to be pitied and succored, than censured and smitten, for suffering derangement, pain, and dire distress to invade her dominions.

I will conclude this section by directing attention to the cause of causes of all our woe—divorcement from, or the want of sufficiently intimate communion with the "Living Head"—with Him who is "the Way, the Truth, and the *Life*."

SECTION VI.

FACTS FURNISHED FROM MY OWN EXPERIENCE AND OBSERVATION, ACCOMPANIED WITH REFLECTIONS AND REMARKS,—AND CLOSED WITH TESTIMONY FROM OTHER SOURCES, IN ILLUSTRATION AND CONFIRMATION OF THE THEORY OF RIGHT ACTION IN DISEASE.

THEORIES, new or old, are of no value only as they are supported by indubitable testimony.

And there is danger of being misled and deceived by facts—*delusive* facts. For there are false facts as well as false theories. "How much mischief have we done," says Dr. Rush, "under the belief of *false facts* and false theories." We have a striking illustration of the truth of this position furnished by temperance statistics of modern collection.

The correctness of the old theory of "moderate use" of spiritous liquors was supposed to be impregnably established by facts. "What!" said an aged and pious deacon, "do you think that you can convince me by any arguments that you can adduce that spirits are not good for me, when I *know positively*, from fifty years experience, that they are?" So thousands of others honestly thought and reasoned. But other facts, drawn from an opposite experience, have proved beyond reasonable doubt the fallacy of the old views, and exposed the danger of trusting to limited facts or one sided experience.

It will be my object in this section to show, by a double or two sided experience, that the old theory of disease—and I include all modifications of old views on the subject under this appellation—is radically erroneous.

I will first give some account of my own experience in the management of disease, detail some of the rea-

sons that led me to change my views and practice, and offer some examples of treatment under both my former and latter views.

I commenced the practice of medicine on my own account and responsibility in 1812. But I will begin the relation of my early experience by a short account of a case committed to my care in 1811, the last year of my apprenticeship with Eli Ives, M. D., of New Haven, for whom personally, and the family, I shall ever cherish a grateful recollection, for unmerited favors and kindness shown me, as also from a deep impression left on my mind of eminent worth.

The disease was a highly inflammatory pleurisy, in a colored young man, in the suburbs of the city of N. H. On my first visit I found the inflammatory symptoms very strong; and, as I then conceived, the indication was first to subdue the inflammation. A full bleeding gave much temporary relief. This was followed with other depletants and cooling diaphoretics. Second day, inflammatory symptoms were nearly as strong as they were on the first day. Another bleeding, not as full as the former, made a deeper and more lasting impression on the arterial action than the first. From this time to the fourth day the disease was quite manageable. Under the influence of mercurial alteratives, Doer's powder, and a free use of diluent and mucilaginous drinks, with smart blisters, the urgent symptoms were kept under. The object steadily aimed at in the treatment, was to subdue the inflammatory action as fast as would consist with a due regard to the vital forces, or natural strength of the system; and on the fourth day the symptoms strongly encouraged me to look for a decided and favorable crisis on the fifth.

On the fifth day I went to the house full of the idea of finding a subdued enemy, and nature recovering herself from the violence of his encounter. Meeting one of the family at the door, I inquired how the young

man was. He is dead! was the reply. The shock almost overpowered me. I returned home with a heavy heart, and got my respected preceptor to go over the case with me from first to last. I had reported progress from day to day, and obtained approbation of the course pursued in the treatment; but I wished now to have the whole matter thoroughly sifted, and ascertain if possible where an error had been committed, whether in doing too much or too little.

It afforded me some relief to have the Doctor say that he could discover no error in the treatment—that so far as he could judge from the report of the case it had been well managed—that the symptoms had been promptly yet judiciously met. But after all it was a bitter disappointment, and occasioned me many sober reflections by day, as well as sleepless hours by night. I had calculated strongly upon success. The subject was a young man of good constitution, which gave me a broad platform to stand on, in my conflict with the enemy; and every blow that I dealt out took effect —told well for the time upon the disease. The means used were powerful and efficient, the enemy had quailed before them, and seemed just on the point of yielding the conflict, and at the very moment when I was expecting a triumph, lo! a most signal defeat.

In some subsequent trials my medical fortune was more propitious. At the request of Dr. Ives, who was ill with a cold, I answered a call, late at night, to see Mr. ———, whom I found with a burning fever and delirius. The account given me of him was that he had been hewing timber the day previous, which was a raw chilly one, with his coat off; that in the evening he complained of pain in his head and back, and general soreness; that efforts had been made to sweat him by bathing his feet in warm water, giving hot drinks, &c., which only served to aggravate the symptoms, especially the pain in the head, which continued to increase while his reason lasted. Without

delay I opened a vein and bled freely, which unlocked the system and gave speedy relief. While the blood was flowing the sweat broke out in profusion, and his reason returned. I left him composed in bed, with a promise of seeing him again in the morning. In the morning, while at breakfast, a messenger called to inform me that the man was well, and that the promised visit might be dispensed with.

The night following, about midnight, I went out to see a woman whom I found "out of her head," and affected at spells with severe spasms. This woman had been hard at work through the day, which was a cold and stormy one, over the wash tub, without eating any thing till night. A smart dose of ipecac revealed something of the immediate occasion of difficulty in this case, in the shape of a huge mass of half masticated beef, pork, potatoes and hard indian dumplings, with their usual accompaniments. I left this woman quiet, in her right mind, with a prospect of rest, and a promise of a medical visit the next day. The next morning, *while at the breakfast table*, a messenger called in and said—"The Doctor need n't call on Mrs. —— again without further notice, as she appears quite well this morning." Some one at the table said to Dr. Ives—"It wont do for you to send Jennings to see your patients much longer, if you do you will be out of business, for he cures them at one visit."

I commenced practice on my own responsibility in Trumbul, Ct., as successor to Dr. B., who had occupied the field for a number of years, and soon found myself in a snug business, and thought my practice was remarkably successful—a notion that young physicians are apt to imbibe and cherish. And it is not surprising that they should do so, under the old views of disease. Some of my cures I thought were quite remarkable—the following was one of them.—

I was called near morning to see Mrs. L. B., aged about forty five, in the last stage of cholera morbus,

and apparently near her end. After administering some aromatics and stimulants, with the external application of heat and irritants, the natural warmth and animation began to revive, and the woman recovered.

In the opinion of the friends and neighbors in attendance, with which I then concurred, Mrs. B. could have lived but a few minutes longer without medical aid. The overflowing of a river in a freshet, between my residence and the patient's, was the occasion of my seeing Mrs. B. at so late a period in the disease. For I had strongly impressed my patrons with a conviction that it was of the first importance to have medical aid *early* in all cases of serious illness, as it was much easier to "nip disease in the bud" than to meet it successfully at any subsequent period.

In the fall of 1814, I lost a patient in fair, open conflict with the enemy, disease, which was particularly trying to me, from a particular regard which I felt for the man and his family, as well as on account of the evidence which every such event seemed to furnish of my want of skill "to fight against death."*

The subject was Mr. J. F., something over fifty years of age, by occupation a farmer, naturally of good constitution, rather full habit, and fresh looking countenance. For two weeks Mr. F. was moderately sick, with diminution of appetite and strength, and with some fever of the remitting form—getting gradually

* At an annual Convention in Hartford of the President and Fellows of the Connecticut Medical Society, Mr. L. Clerc, then Assistant Teacher in the Deaf and Dumb Assylum, himself deaf and dumb, was invited, along with the Rev. Mr. Gallaudett, Principal of the Assylum, to dine with the Convention, in accordance with a very laudable usage to invite some Clergyman to dine with them on such occasions. After dinner, when toasts were being called for, (a practice which I hope is abandoned before this time, unless the toasts are drunk with pure "Adam's ale,") Mr. L. Clerc was called on, by signs through Mr. Gallaudett, for a toast;—when he wrote—"Gentlemen of the Medical Profession, may you become good soldiers to fight against death."

worse to the close of the second week, when there was a sudden change, and the disease assumed a new and an alarming aspect. The febrile action ran high in the afternoon, and fell low in the night. I began immediately on seeing this change to get "an anchor to the windward," by mercurial alteratives. The paroxysms continued to recur from day to day with increasing malignancy. The exacerbations of fever in the afternoon diminished, while the sinking in the night deepened. The object aimed at in the treatment was to equalize excitement, and keep the action as near uniform as could be done by such means as the system would bear without crowding it too fast—using antiphlogistic or febrifuge medicines for cutting down febrile action when it rose too high, and stimulants to prop it up when it threatened to drop too low—depending on the two-edged mercurial sword to slay the disease before it should get a fatal grasp upon the vitals. On the fifth day, (reckoning from the time of the sudden turn in the disease,) the febrile action did not rise high enough to require checking, and the febrifuge medicine was laid aside, and dependance made alone on stimulants.

On the morning of the sixth day, being much exhausted from want of rest and constant anxiety, and anticipating a sleepless night for the one to come, I gave the patient in charge to the attendants with directions how to manage in my absence, promising to be back in the afternoon in season for the sinking turn, got on my horse, made a few calls, went home, slept awhile, and at four o'clock P. M. was again at my anxious post by the side of Mr. F. I was surprised on entering the sick room to find my patient sitting up in a chair under the barber's hand. There had been a sudden waking up of the energies which encouraged the man, and as he was quite anxious to get well, and wanted to encourage the family, he had requested to be got up and shaved. His form was not

very much wasted, especially in the face, and a little febrile flush gave him much of a natural appearance. The family and friends were elated at what they esteemed a favorable crisis and prospect of rapid recovery. But that which gave them joy filled me with fearful apprehensions. I saw that it was life "flickering in the socket." Suppressing my feelings as well as I could, I took the razor into my own hand, remarking to the man who was shaving, that I could play the barber better than he could, (an office which I frequently performed for the sick,) and soon closed the operation, put the man into bed, and made ready for him my sturdiest props; but to no purpose. At ten o'clock that same night, he was sleeping his last sleep.

This was one of the cases, as I have since become satisfied, of which mention is made in section fourth, on analysis of symptoms, under congestion of blood vessels, of individuals who go down from the midst of life, without any obvious or assignable cause. And this class of persons very often, if not more frequently than otherwise, sink at last in very much the manner that Mr. F. did. They will be complaining along for a short period, and then go down in from five to seven days, with alternate periods of rising and sinking. Sometimes these will be on alternate days—every other day the patients appear quite comfortable, their friends feel very much encouraged about them, but on the following day hope vanishes.

In 1815, Mrs. R., of not very abstemious habits, was "attacked by" a curious medley of epilepsy and hysteria, which took her to the border of the grave, as I then judged, though one of the neighbors thought differently. The most frightful part of the disease was by paroxysms or fits. These commenced with a spasmodic twitching of the eyes, which soon became fixed in their sockets; the head was drawn a little backward, and the whole body extended for a few seconds in a firm, unyielding spasm; and then the el-

bows would begin to play upon the bed, like the drumming of a partridge, with astonishing rapidity and force. The subsidence of the spasmodic action was succeeded by deep groans, which, on the return of consciousness and power of speech, we learned was occasioned by pain about the region of the stomach. Extreme debility and faintness closed the paroxysms, of which there were many.

As I was returning from a visit to this patient, after witnessing one of these terrible fits, a woman came from a house not far distant, and inquired of me what I thought of Mrs. R. "I believe she must die," was my sorrowful response. The woman smiled and said, —"You need n't calculate upon her dying, you could not kill her with a post-ax."

About this time or soon after, my confidence in medicine began to be shaken. There were a number of causes that conspired to produce this result. I will glance at a few of them. I found that old physicians with whom I came in contact, gave much less medicine than young ones did. It did not satisfy me to be told that experience gave a better knowledge of the nature and seat of disease, of the power of medicine, and of acumen and skill in the adaptation of the latter to the former, by which the same end could be accomplished with less means. Old physicians were much less disposed to interfere with the operations of nature than young physicians were.

The late Dr. Tisdale, of Bridgeport, with whom I was intimate, and who had been in practice longer than I had, said to me on one occasion—"Jennings, do you know that we do not do as much good with medicine as we have been wont to suppose that we do?" I answered in the affirmative—told him that I was becoming well satisfied that it was even so. "Do you know," continued the Doctor with a good deal of emphasis, "that we do a great deal more hurt than good with medicine?" To which I replied that my

knowledge did not extend as far as that. He then gave me some account of a double or two sided experience, and put me in possession of facts that led me to think more on the subject.

While visiting a family and making out prescriptions for some of its members, in a district where a fever was prevailing to some extent, Mr. J. P. called in and requested me to examine him, as he felt quite unwell. I did so, and told him that the fever was upon him, and that something should be done immediately to arrest its progress, and began to open my huge saddle bags to furnish him with the requisite means for commencing an attack upon the enemy. "I won't take any thing now," said Mr. P., "you will be around this way every day, and if I get worse will let you know." A few days after this, passing by where Mr. P. was at work in a lot a short distance from the road, I jumped from my horse, went to him and inquired how he was. "Very well" was the answer. I examined the pulse, tongue and temperature of the body, and found that the fever had entirely left him. I inquired whether he had done any thing to break up the fever. He said he had not.

From this time I began to make a thorough trial of leaving nature to manage diseases in her own way, as well as she could, giving medicine only when I apprehended danger. And the further I carried the trial, the deeper the conviction was fastened on my mind that there was a serious error somewhere both in the theory and practice of medicine. My large saddle bags gave place to small ones; and these were soon laid aside, and a pocket or two made to carry all the medicine that I needed in my practice.

In June, 1820, I removed to Derby, at the special request of Dr. Pearl Crafts, who was being laid aside by an affection of the lungs, of which he died a few months afterwards. Dr. C. had acquired much celebrity as a physician, and an extensive practice.

Within a few weeks of my removal to Derby, Dr. Edward Crafts, father of Dr. P. Crafts, of the north or "Up Town" village, who was also in possession of a handsome practice, was thrown from his horse, which produced an injury of the spinal marrow, of which he died after lingering a few months. Into the occupancy of this double field, with a retention of a portion of the business in Trumbul, the place which I had left, nine miles from Derby, and still more in Huntington, an intermediate town in which I had done considerable business, I entered, with my views of the practice of medicine very much modified from what they were when I commenced the practice. I had got about where many physicians get when they have been a few years in practice with their eyes open—making but very little dependance on medicine, except in bad cases of disease. With these views I continued to practice till the fall of 1822, when my confidence in medicine in severe illness was shaken by further developments, of which the following is a specimen.—

In the family of Mr. J. French, residing at Derby North End, some two miles from my residence, there were, within the compass of a few weeks, nine cases of malignant Typhus fever—namely, Mr. and Mrs. French, five sons, one daughter, and a sister of Mrs. French. Mr. French and three sons had been hard sick a number of days when Mrs. F. failed. Worn down with labor "night and day," care and anxiety, she sunk rapidly on first giving out. The most distressing and alarming symptoms were great prostration of strength, and extreme irritability of the stomach, with constant tendency to vomit. A great variety of means, internal and external, mild and severe, were used to allay the irritability of the stomach, but to no permanent or good purpose. The symptoms on the whole became more distressing and alarming. Calling in to see her one morning, about the fourth day of the disease, I was greatly pained and alarmed at her dejec-

ted and distressed appearance. Walking out into an adjoining field, that I might the better command my thoughts, I went through with a very minute and thorough review of the whole case, to discover, if possible what more could be done with promise of relief, but could think of nothing that offered sufficient inducement for trial. I returned to the house, and inquired of the nurse, what, of all that Mrs. F. had taken, seemed to agree best with the stomach. The reply was, "Very little difference in any thing except water. When she takes that—and she wants it directly from the well—it stays on the stomach and nothing else does, no matter what it is." My mind was soon made up on a prescription for the day. Returning to my promenade in the field, where there was an excellent spring of soft pure water, I took a vial from my pocket, discharged its contents, rinsed it thoroughly, filled it with the spring water, went back to the house, called for a clean vial, into which I turned a portion of the new and choice medicine, and directed four drops of the *aqua fontana pura* to be given, once in four hours, in a tea-spoonful of water directly from the well, (which also afforded good water,) and that nothing else be suffered to enter the stomach till I should see the patient again, except water, which she might take as often as, and in any quantity she pleased. Called at evening, and in answer to the usual inquiry, "How is the woman?"—the reply was—"Comfortable; you have at last hit upon the right medicine. *The drops are just the thing for her.* She has had no sickness of the stomach since she began with them, and but little distress—she has slept some, and has had a very comfortable day." This case gave me no further trouble. *The drops*, with a little placebo medicine, finished the cure, as far as medicine was concerned. This "water cure" occurred a few days after Mr. Isaac Treat, (some account of whose case was given in section first,) was convalescent.

The issue of Mrs. French's case, with other facts of a kindred character, strongly impressed me with the belief that if a similar course had been pursued with Mr. Treat, it would have saved him from much harm.

At the time these families were sick, (fall of 1822,) the typhus fever prevailed extensively in that region, giving me a ride five miles north, through the districts of Up Town, North End, Neck, Great Hill, Rock-house Hill, Punckups and Squantuck;—then across the river, on Huntington side, through Upper and Lower White Hills, Long Hill, Narrows, Coram, Oronoak and Putney, six miles south of my residence; —then crossing the river again into the northern part of Milford, through Orange, Dogman, west part of Woodbridge, home.

In this disease I met with every form and variety, which, after the successful termination of Mrs. F.'s case, I improved for testing the no medicine treatment. And I had no cause to regret what some would call my temerity, for not one of the many cases that were under my direction that season proved fatal, though a number, to appearance, went to the border of the grave and returned.

I will give one instance.—Miss Ann Hurd, sick at the house of her brother-in-law, Ezekiel Gilbert, at the foot of Great Hill. Miss H. had been sick three weeks, during the last of which her death was looked for almost every hour. At this extremity of the illness, I made it a point to close my daily rounds at Mr. Gilbert's, and stop there as long as circumstances would warrant. I reached there one night about ten o'clock, took a little refreshment, and lay down. About one o'clock, with the other members of the household, I was called up to see Miss H. die. We gathered around her bed—supposed that we had witnessed the closing scene—and had turned away. Mrs. Poole, one of the neighbors who was in attendance on the occa-

sion, closed her eyes and remarked that she was glad to see her die so easy. But the vital forces had not entirely abandoned their post, they had only retreated out of sight for the accomplishment of an important object. When that end was attained they touched again the main-spring, and some of the wheels of life were seen to move gently.

Miss H. recovered, married a Dr. Nettleton, and moved "to the west."

But, not only the typhus fever, but diseases of every kind and grade, which an extensive country practice furnished, were subjected to the same test. I do not mean by what is here said that I gave no medicine in any case. I did on some occasions give medicine, for various reasons. Sometimes to humor the squeemishness of patients. For instance: Mr. J. M., who had been unwell for some time, and had become somewhat impatient, insisted upon my giving him something that would produce a sensible effect, so that he might be sure he had taken some medicine. I gave him a pretty smart dose of croton oil, and it was not long before he *knew* that he had taken something.

I frequently gave anodynes where there was much pain, and no special danger to be apprehended in the case. And generally I made a show of giving medicine, in pills, powders, drops, &c. My personal stock of drugs, or substances that I carried with me to be used in the lieu of medicine, usually consisted of a little wheat flour or starch, for powders, put up nicely in papers, some in a natural state, and other portions variously colored; for pills—bread, variously colored, and made into small masses ready for pilling, with a little castile soap or something that would keep it of the right consistency for pilling;—for drops—water, in two or three little vials, some colored and some not. The pills and powders were often scented with some aromatic oil, and sometimes bittered a little, to give them a medicated appearance. I also gave active

medicine for the destruction of worms, and for other purposes of which I shall treat more particularly in another section.

But I gave no medicine for the purpose of breaking up, shortening, or in any wise modifying diseased action, nor for helping nature in her conflicts with disease, or to strengthen or aid her in any respect. For either of these purposes I despaired of giving medicine to any advantage, until I could get more light on the subject, for which I sought with much earnestness. At that time I had not begun to suspect that the foundation on which we were standing was a false or rotten one. I still regarded disease in the light of an enemy, "wrong action," or something of that kind. When standing by the bed side of a patient racked with pain and ghastly with disease, I seemed to be standing by the side of a friend in close, indiscriminate conflict with a deadly enemy that was bent on his destruction, and I panted to raise my sabre and give the foe a home thrust, and relieve the friend. But my fears were that I might miss the enemy and kill the friend; or if, perchance, I should strike the enemy and not give him a mortal blow, it would only enrage him and arouse him to more deadly efforts. Under such circumstances I deemed "discretion the better part of valor.". What the difficulty was, whether it consisted in a want of the right apprehension of the nature and seat of the enemy, or in want of skill to use our weapons, or whether the weapons of our warfare were well adapted in themselves to the end for which they were used provided we knew how to bring them to bear directly upon the enemy without harm to the friend, I could not tell; but sure I was, that, according to any rules of medical tactics with which I was acquainted, the weapons had better be kept from the field. I had become satisfied that in taking this course with my patients they were benefited in four respects.

First, The disease would run a more uniform and regular course.

Second, As a general thing, diseases would be shorter, terminate sooner, when once formed; or, if they were broken up by medicine, they would return again, and in the end be longer and more of them than when they were suffered to go on unmolested.

Third, A less number of them would terminate fatally, and,

Fourth, When health was restored it would continue longer without interruption.

For three or four years from the time that I discarded the general use of medicine I was afloat on the broad sea of anti-medical empiricism, without chart, compass or pole star to guide me. I had nothing on board my frail bark by which to determine my latitude and longitude, bearings and distances, but the lead and line of experience, and, withal, was frequently off soundings; by no means an enviable or pleasant situation.

During this time, my mind labored on the question, —What is disease—its nature? In what does it consist? It appeared to me that that question should be definitely settled, so that we could put our finger on the thing and tell just where it was and what it was, and then ascertain by what means it could be the most expeditiously and advantageously removed. I read much, thought much, and, as I had opportunity, conversed with my medical brethren on the subject, with a view to the solution of the above question.

The course which I pursued in the investigation was, to take an isolated case, or single disease, and dissect it, in the hope of finding out its root or base—why it existed, on what it immediately depended. For instance, I would take up inflammation, and carefully analyze its phenomena, and trace the symptoms back to their origin, with a view of ascertaining why such a deviation of action from the natural state of the parts should take place. Meeting a medical friend in consultation in a case of inflammation of the bow-

old, I said to him, "Doctor, what is the difficulty here?" "Inflammation." "What is inflammation?" "Morbus ipse"—[The disease itself.] "But in what does the inflammation consist?" "In an increased action of the vessels." "On what does the increased action of the vessels depend?" "On irritability." "On what does the irritability depend?" "Why—why—the irritability depends on"—and that was as far as he could go; he had come to a dead stand. There was where I had ended many a time. Now the general question with regard to the proximate cause of disease, was narrowed down to a single point. What supports the irritability? There was a reason for *its* existence. It was an unnatural state, and without a good and sufficient reason for its continuance, it would cease, and the natural condition of the parts be resumed. It was not enough to be told that rum, tobacco, tea, coffee, or some other poisonous substance produced it. Suppose rum was the cause of its production? The rum had expended itself, and was gone; but the irritability was alive and vigorous. If the irritability depended on rum as its proximate or immediate cause, with the departure of the latter the former would depart. There was, then, a link between the action of the rum and the irritability, that must be found, to make the chain complete. The great desideratum, therefore, was to ascertain what the foundation was which the rum had laid for the irritability to stand on. For if we could find out what that foundation was, and remove it, the irritability would fall with it; and if the irritability fell, the increased action of the vessels would cease, and thus an end would be made of the whole difficulty. In applying myself to the solution of the question—On what does the first symptom of disease rest?—I watched very closely the operations of nature both in health and disease. My first inquiry was—what constitutes good health? What are some of its most

prominent characteristics, and on what does it depend? What is essential to its maintenance? Second inquiry was—In what respects does disease differ from health? What has been added or subtracted, or what change has taken place in the parts concerned, that has substituted the diseased condition for the healthy one? I also inquired into the nature, mode of operation, and direct effects of disturbing causes, —and was particularly careful to observe the progress of disease from its faintest dawnings through all its changes and stages to its acme, and then down to its last evanescent glimmerings. And as I was then leaving the vital forces to put forth and control their own movements in disease, at pleasure, I was struck with their regularity. They generally began what is considered deranged or diseased action moderately and gradually, and after arriving at a certain point, return again in the same cautious manner to the natural state. And observing the fact that disease left persons better than it found them, or that in most cases the health was improved from what it was sometime previous to the accession of disease, I was led to inquire—where is the evidence that disease is a health and life destroyer?—and was brought at length to the conclusion that we had been most wofully deluded on this subject;—that there was no cessation or "interruption of healthy action," and "establishment of diseased action," or an action whose nature and tendency was adverse to health—no turning back of any portion of the machine, or law of action upon itself; —but that nature was always true to herself—that the economy of life was a unit—the nature and tendency of all its actions one and indivisible—always aiming at the point of perfect health, and approaching and keeping as near to that point as it had ability to do;—and that the only foundation which rum or any other disturbing cause laid for the establishment of irritability, redness, pain, congestion, or any other

symptom or symptoms of disease, was debility—want of power—an inability of the parts affected to do better or otherwise than they were doing, consistently with the highest good of all concerned.

It would be impossible for me to convey any thing like an adequate idea of the relief which my mind obtained in settling down upon this view of disease. The man who, ignorant of swimming, has waded a broad and rapid stream, and who was ofttimes borne from the bottom by the depth and current of the water, and at last gained terra firma, may get some faint conceptions of my feelings by following me in imagination, in some of my deep wadings, after leaving the shore of old views and practice. I confess that I sometimes felt that the water was getting too deep and the current too strong for me, but a kind Providence, as I trust, beckoned me onward, and at length planted my feet upon firm table ground. The theory of disease which I now hold and advocate, is, to my mind, not only more rational, more consistent with the general laws and operations of nature, than the old views of disease, but better vindicates the benevolence of God—affords better evidence that God's "ways are equal," tending continually to the health and happiness of men, and that a violation of these must be *persevered* in to secure pain and wretchedness. After I had become well established in my present views, and had practised sometime in accordance with them, I made them known to two of my confidential, bosom friends, in whose intellectual and moral worth I had great confidence—J. L. Tomlinson, then Attorney at Law, now a devoted and efficient clergyman, and Mr. Samuel Mills. Both of them had families, and were depending on me for medical aid in sickness. They were startled at first at the disclosures I made to them. Mr. Tomlinson said, "I have been a Roman Catholic with regard to my physician—have let him think and act for me, but

I must now look into this matter." But having attentively examined my theory, and observed the results of it in practice, they both bade me go forward. They said to me in substance, "We like your theory of disease; it is more rational than the old theory, and there is good evidence that your practice is successful; and considering the distracted state of medical views and medical practice, we think you are justifiable in the course which you are now pursuing." And they encouraged my disguised mode of practice, on the ground that the public were not prepared for my views, and that further testing of them was desirable under an undisturbed state of the public mind.

CIRCUMSTANTIAL EVIDENCE IN FAVOR OF MY CHANGED VIEWS OF DISEASE.

My patronage, large at first, continued to increase under my "bread pill" practice; and that this practice was generally satisfactory, a few plain, well understood and incontrovertible facts will show.

Dr. Lewis French, a well educated and experienced physician, in the prime of life, of unblemished character, highly recommended, and well known too in that region, was invited into Derby, on the ground that the field formerly occupied by at least two physicians, was too extensive for one laborer, which was true,—and no one made or felt any objection to a division of it. High expectations of successful competition were entertained for Dr. French, aside from personal considerations on account of strong family connections in the place, and sectarian influence,—a large and influential ecclesiastical society, of the order to which Dr. French was attached, being desirous of having a physician of their own cloth, as was very natural, and proper too under the circumstances. But after a fair experiment of one year, the Doctor turned his back upon us, not having obtained business enough to pay

for his horse-keeping. Shortly after Dr. French left, Dr. Pomeroy, a very worthy and valuable young man, fresh from the justly celebrated New-Haven Mint, and every way qualified to practice medicine "according to the books," was introduced. Being a young man in easy circumstances, it was thought he might *grow* into a good share of the business. Dr. P. remained faithfully at his post ready for use six months, and left. The day before he took his leave, Dr. P. informed me that he had had three calls; one to bleed A. B. after a fall in a drunken scrape, another to extract a tooth, and the third, for a portion of physic,—while during much of the time that Doct's F. and P. were in Derby, my fingers were aching under the rolling up of bread pills. Next to Dr. Pomeroy, Dr. Darken, an Englishman by birth and classical education—medically educated and married at New-Haven—a young man with superior recommendations, and quite prepossessing in his appearance and manners, was induced to make a trial of planting himself, or of being planted in Derby.

About this time I had made up my mind to let the people of Derby know how anti-medically they had been treated, which was accomplished by public lectures. I came to the conclusion that if I attended upon the sick any longer, it must be in an open undisguised manner, and without the formality of bread pills,—for I had rolled up bread enough. Previous to the public exposition of my views and mode of treatment of disease, I had made some preparation for sliding into other business for the support of my family, under an apprehension that the income from my anti-medical practice, after the contemplated disclosures would be insufficient for that purpose for two reasons.

First.—That many of my employers would probably feel when they were sick, that they must have something done for them.

Secondly.—That the balance, or those who might be

convinced that medicine was unnecessary in sickness, would to a great extent, take care of themselves. Under these circumstances, I proposed to Dr. Darken a partnership in practice for a limited period, offering to relinquish my practice at the expiration of the specified time; explained to him my views of disease, and general method of treating it as well as I could in a few short interviews,—and agreed that in practice each should be guided by his own sense of duty. He accepted my proposition. The result of making known my anti-medical views was different from what I had anticipated. When messengers came for a physician, the word was, "The old Doctor must go, "medicine or no medicine." A great advantage was gained for my changed views by accompanying facts. "What!" said A. "did you carry me through that severe case of billious cholic without medicine?" "Yes." B., "Did you give me no medicine, when I was so sick with the lung fever?" "No." C. D. E. &c., "Have you made no dependence on medicine in the typhus fevers, dysentaries, scarlet fevers, nor any of the diseases that have prevailed here for a number of years?" "No." "Very well," "go ahead then." "If you can manage us in sickness without medicine, so much the better." And to quiet my fears on the ground of support, they secured me a competent salary by a permanent subscription; or one which was to continue in force while I remained with them and attended upon their sick. And as Dr. Darken became inclined to take orders, the partnership was relinquished.

For the purpose of showing how my reputation as a medical practitioner stood abroad, it may not be irrelevant to state in this connection, that just before I turned myself right side outwards, a deputation from a portion of the inhabitants of Bridgeport waited upon me with an invitation to enter an important vacancy in the medical department, or field of medicine in that city.

Testimony of competent witnesses.

When I was about to leave Derby with my family for the west, I requested my particular and endeared friend, Mr. Samuel Mills, to give me a written expression of his opinion of my medical views and practice. Shortly after he handed me the following paper, with the signatures, remarking that want of time prevented his getting more names,—that all to whom he had handed the paper subscribed very cheerfully. At the time I took the paper, I had no thought of publishing a book.

Derby, New Haven Co., Ct., April 9, 1839.

To whomsoever it may concern.

Whereas our much respected friend and physician, Isaac Jennings, is about to leave us, we are happy to give this expression of our opinion of his worth as a citizen and neighbor, and of our confidence (after an extensive practice of nineteen years among us) in his skill, judgment and prudence, as a physician. We are fully satisfied of the truth of his general positions in regard to the effect of the common medical practice, the injurious operations of customary prescriptions against the salutary efforts of nature. (After giving something of a detailed account of my views, the paper continues,) We feel gratified with the increasing attention of the public to these views; and express our conviction that it will eventuate in their extension and final triumph. Whilst we feel most painful regret at our loss of a highly valued and useful member of our community, we unite in recommending him to the confidence and affection of all persons, among whom a wise and beneficent Providence may direct him.

Zephaniah Swift, Senior Pastor of the Congregational Church,
Hollis Read, Associate Pastor,
Ebenezer Keeney,
Henry Downs,
Zephaniah Hallock,
John Lewis,
Oliver B. Sherwood,

SAMUEL MILLS,	PETER PHELPS,
LYMAN OSBORN,	D. W. PLUMB,
LYMAN SMITH, JR.	JULIUS HOTCHKISS,
LEMAN STONE,	JOHN CLOVES,
GEORGE BLACKMAN,	URBANE H. SWIFT,
ISAAC J. GILBERT,	JOSEPH P. SWIFT.

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The following testimonials were none of them given with a view to publication in the manner in which they are now used. At the time of their solicitation, I was on a visit to my native state, and on the suggestion of some friends of medical reform, consented to spend a season in lecturing in some of the towns contiguous to the field of my former labors. These certificates were taken in furtherance of that object. Before I had proceeded far in my lectures, circumstances demanded that I should abandon them and return to the care of my family—and it was under this exigency that a number of my friends urged me to write out my views on medical subjects and give them to the public through the press, and in doing this I take the liberty to connect these testimonials with the publication, believing that they will thereby subserve a good cause,—regretting only that they have not an abler hand to use them.

The first certificate it will be perceived is from the same hand that wrote the one inserted above.

Derby, New Haven Co., Ct., March 19, 1846.
To whom it may concern.

This may certify that the undersigned has been intimately acquainted with Dr. Isaac Jennings, formerly of this place, for more than twenty years, has, during all the period of his acquaintance, highly esteemed him as a citizen, physician, christian and friend—and is happy to bear testimony to his skill and faithfulness

as a physician in his family; and to his fearless, though careful search after truth, and persevering investigation of facts, independent of names and received opinions; combined with prudence, and with deference to the opinions and arguments of others. The undersigned believes with Dr. Jennings, that prescriptions of the medical faculty are, to a great extent at least, injurious; and that medicine usually does violence to the human system by forcing nature from her well chosen course, and exhausting her energies. That the action of nature is right action only; and will perform all necessary offices whilst its resources hold out;—and that the science and practice of preserving health are of paramount importance. The disuse of medicine in my family for many years, has confirmed my opinion that it is generally best to let it alone.

SAMUEL MILLS.

Derby, March 21, 1842.

"Having been intimately acquainted with Dr. Isaac Jennings during his residence in Derby, I can cordially unite with Mr. Mills in the preceding recommendation. He was my family physician while with us, and attended on my wife and myself during a confinement by fever. While strictly watching our symptoms, and giving all necessary directions, he reasoned us into the belief that it would be better for us in the end to recover without medicine than with. On our recovery we were satisfied that the course which he pursued with us was the best. My health has been generally better since that sickness than in previous years. I have never known a man labor so much against his own pecuniary interest as the Doctor, in order to promote the health and welfare of his fellow-beings. His lectures on the means of preserving health, and the best means of regaining it when impaired, I consider

to have been of great benefit to my own family, and to many in this community. He possesses much of the benevolent spirit of the gospel, and is deserving of a cordial reception by all philanthropists."

ZEPHANIAH SWIFT, *Sen. Pastor of the Congregational Church.*

I feel constrained to remark here that the trial of the Rev. Mr. Swift, in the "no medicine" treatment alluded to by him, in his own case was one of no ordinary character. He was confined with billious fever, together with an accompanying and succeeding very uncomfortable affection of the bowels, from the latter part of July, till near the close of September, eighteen hundred and thirty-four. With the exception of about two weeks, he was able to sit up and walk about the room a little, though quite feeble; just in the right state to give a striking exemplification of the injunction of the Apostle James, "Let patience have her perfect work;" and most admirably, or rather piously, did he make the exhibition. Often was I astonished, as I saw him from day to day, to witness his confidence, under the peculiar circumstances of his case, in the course pursued with him, and his patience under it. Never for once to my knowlede, did he manifest a wish for a change, and it afforded me no small gratification to hear this beloved pastor, dear to me and to many others, say for years after the trial, that he was well paid for the endurance of that protracted illness.

New Haven, March, 1842.

Extract from a testimonial by Mr. Amos Smith Jr., Principal of a High School, New Haven, Ct.

"I have for many years been afraid of medicine, have sometimes been unwell, but have preferred rather to trust the operations of nature, than the means usually employed. When I first met with you, I was pre-

pared to listen to your theory and statement of facts in your own practice with intense interest; as my own observation and experience, so far as they went, exactly corresponded with them. From all that I have learned of your theory and practice for the last eight or ten years, since I first became acquainted with you, I am thoroughly convinced that you have got hold of the right end of the subject; and that it is your duty to make known your views as extensively as possible,—in the prosecution of which, I can assure you that you have my most cordial sympathies.

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Extract of a letter from Mr. David W. Plumb.

Mr. Plumb, who favored me with a letter of some length, from which I take the liberty to make the following extract, was not a resident of Derby till a short time previous to my leaving there, but had lived within ten or twelve miles, and had heard some thing of my views and practice.

Derby, March 21, 1842.

"My means of becoming acquainted with your views, are, as you are aware, limited; having only on a few occasions, and not at any regular course, heard you give a few lectures. I was early impressed with the conviction that there was a great deal too much medicine used, and was therefore, perhaps, predisposed to imbibe your views when I first heard them. Your theory, so far as I understand it, is certainly a beautiful one. It has every appearance of truth, and is withal so reasonable and so natural, that I shall be glad to find that it does not conflict with facts. I find it very easy to believe that the action of nature, when not disturbed by opposing causes, is always healthy and correct; and when that action is disturbed or thwarted, it seems a rational conclusion that to remove the disturbing cause, if still existing, and it be practicable,

wisest and most natural course. So far as I have had opportunity of judging, remedies employed for the removal of ill health or disease, have been successful in proportion as they have been simple and natural, and did little or nothing to retard or interrupt nature's attempts to perform her own cure. If your system can be fully established on the firm basis of experience, if it shall prove to be the true one, there is hardly a limit to the advantages to result from its general adoption. Believing as I do that it has all the appearance of truth, and that if it be true, it is calculated to be eminently beneficial to the human race, I will close by wishing it and you success, which I am sure you, and I trust the system deserve.

D. W. PLUMB.

Being in the store of Messrs. Blakeman and Downs, of Derby, in the immediate vicinity of my former residence, and these two gentlemen being in, together with Isaac J. Gilbert Esq., resident of the same village, all of whom were well acquainted with my anti-medical views and practice, I requested them to give me written answers to the two following questions.

First.—What do you think, in general, of my views of disease, and of medicine?

Second.—Is there in your opinion a growing interest and confidence in the minds of this community, in my views and treatment of disease?"

ANSWERS RETURNED.

Answer to the first question.

"That your views of the nature of disease, and of the effects of the common medical practice on the human system, are substantially correct, we entertain not the shadow of a doubt. Your theory of disease is simple, rational, easily understood, and commends itself to the common sense of mankind; and that your

views of medicine, even in disease, are true, facts abundantly testify. We can no longer believe in *poisoning* folks *to health.*

Answer to the second question.

To your second question we answer unhesitatingly in the affirmative,—and would also add as the expression of our conviction, that if you were to continue your labors in Derby, in favor of medical and dietetic reform, the time would not be very remote, when, not only would the common use of medicine in diseases be discarded, but diseases themselves become much fewer, lighter and less complicated."

ISAAS J. GILBERT,
GEORGE BLAKEMAN,
Derby, March 19, 1842. HENRY DOWNES.

By a very felicitous providence, I met in Derby my former neighbor and substantial friend, the Rev. Mr. Tomlinson, both of us recently from the west—Mr. Tomlinson from Michigan, and myself from Ohio. Mr. Tomlinson, as has been already stated, was the first man to whom I communicated my present views of disease. At my request Mr. T. penciled in a small note book which I had with me at the time, the following:—

"*Derby, July*, 1842.

"In addition to former opportunities to be acquainted with the theory of Dr. Isaac Jennings regarding the nature and cure of disease, I have recently enjoyed the privilege of attending three Lectures delivered by him in Derby, on the same subject. My mind has long been inclined to the entire and unqualified adoption of the views therein maintained; and in my humble opinion the extensive inculcation of these views in the community, will be productive of great good.

"J. L. TOMLINSON."

The following certificate was handed me for insertion in this work, and needs a few prefatory remarks.

Mr. Wm. Hosford, whose case is noticed in the certificate, with his family and a few other families, removed from Oberlin to Michigan in the spring of 1844, to form a settlement under the direction of the Rev. John J. Shipherd, one of the founders of Oberlin.

Before they had been many months in Michigan, the little community was called to pass through the scourge of that State, the ague and fever, in a very severe and trying manner. Under this sore visitation, Mr. Shipherd closed his earthly pilgrimage, and Mr. Hosford, with most of his family who were with him, and several others, were long prostrate in strength with the same disease. In August, 1845, Mr. Hosford visited Oberlin, in part for the benefit of his health, and while here he suffered a relapse of his complaint, and in a manner well calculated to alarm his friends. After having a few paroxysms of the ague and fever, he sunk rapidly into a senseless state, a type of the disease that, it is supposed in this region, will prove speedily and inevitably fatal, unless broken in upon and turned back by prompt and energetic means. Mr. Hosford was tired of medicine, and resolved, in the commencement of the relapse, while reason was on her throne, that he would take no more of it in that sickness, live or die. Young Mr. Hosford, the writer of the certificate, was then a student in theology in the O. C. Institute, and took the oversight of his father, and for a few days his faith and patience were put to a severe test. He was beset on all hands to have efficient medical aid furnished for his father, whose personal responsibility was then suspended, and was assured with much positiveness that life would be the forfeiture of default in this particular.

After the father had been mending finely for a few days, the son asked Mr. P——, who had perhaps

manifested as much sympathy for the sick man as any one, what he thought of the case then. "Ah," said Mr. P., "you havn't seen the whole of it yet." Meaning, doubtless, "The *monster* is not dead, and will yet, at some unpropitious moment, pounce upon your father, and take his life."

But the monster has thus far kept his lair with uncommon seclusiveness and circumspection, for since that sickness, Mr. Hosford has enjoyed excellent health, which is now, (December, 1846,) more than a year.

"*Oberlin, April* 21, 1846.

"*To whom it may concern:*—

"This may certify that the undersigned has been acquainted with Dr. Isaac Jennings for several years past. Two or three years since I had the pleasure of listening to a discussion conducted by Dr. J. and others, on the nature of disease and the best method of treatment. At that time I was much prejudiced in favor of the old system of practice.

"I was led, however, by what was then said, to watch more closely the operations of my own system, and to examine more at large the Doctor's theory. I at length became convinced that his theory of disease was not only a sensible one, but also the most natural, yet I was not a little skeptical with regard to the results of his *no-medicine* practice.

"Last year, I was, in the providence of God, called to watch for several days over the sick, and as I then thought, dying bed of my father. As he was entirely opposed to the use of medicine, I gave him nothing but cold water. The disease soon assumed the typhoid form, and all hope of his recovery became extinct. He remained almost senseless for nearly three days, when a most manifest change took place. From that time his recovery though gradual was constant. In a few weeks he was enabled to engage in his accustomed labors, and is now enjoying perfect health.

"Since that time I have conversed with Dr. Jennings and many others, with regard to disease and its treatment, and have become satisfied that not only his theory but practice is correct.

"I greatly rejoice that the Dr. has consented to write out his views at length, and prepare them for the press. I most fully believe that reform is demanded, and that the work prepared by Dr. J. is what is needed to bring this subject before the world.

"ORAMEL HOSFORD."

ADMISSIONS OF PHYSICIANS.

Almost with one consent physicians say, we have given too much medicine; we have not relied sufficiently upon the recuperative efforts of nature.

Dr. J. A. S., of New York, remarked to a friend of mine, a number of years since, that physicians of any note in that city, were not giving more than one tenth of the quantity of medicine which they formerly gave.

Dr. B., of Boston, said, a year or two since, that he could carry medicine enough in a small snuff box to suffice for all his practice, and that is probably more extensive than the practice of any other physician in that city.

Dr. J. the younger, of N., a deservedly popular physician, admitted to me in 1838, that at that time he used not more than one tenth of the medicine which he did in his early practice, and had five times as much business. I said to him, "Why is this? If disease is an enemy, why not meet it with a force sufficient to repel it? If it is not an enemy, but a friend, throw aside your weapons of war entirely, and treat it as a friend. How far will you carry the disbanding or reduction process? Will you be content when you get on to a level with the Homœpaths?" "O no," said Dr. J., "when I get down where the

Homœpaths are, I will come over to you. Their infinitesimal doses are too ridiculous to be tolerated by me."

Dr. E. M., of T., in possession of a wide spread practice, in consultation with me in the last sickness of D. T., of H., made admissions that at the time surprised me. He had very little if any more confidence in medicine than I had. "And," added he, "my father, [who was also a physician,] used to say that folks wouldn't often die, if nothing was done to kill them." I had myself heard the old Doctor say, that "almost any constitution will get along with one physician, but it required a good constitution to stand two physicians, and there were very few that could endure three doctors."

Dr. H., of Detroit, who had formerly done an extensive business, but was then retiring from the laborious part of practice, to whom I was introduced by a mutual friend, and who through this friend had received some account of my theory of disease, requested me to give him some detail of it. I did so; when he remarked:—"I have been satisfied for more than twenty years, that there was a radical defect some where in our science of medicine; where it was I could not tell. If your views are correct, and they appear rational, they solve the difficulty. During the time of which I have spoken, I made little or no dependence on medicine for the cure of diseases, from a conviction that it did more hurt than good. I have sometimes given a little ipecac in a torpid state of the primal vial, [first passages, stomach, &c.,] with a view to change and quicken action, but was never certain that even this was on the whole beneficial. I will give you some marked cases of the success of my practice.

A few years since I spent some time in St. Clair city on business. A fever was prevailing there that proved very fatal. I was called in to see a woman

very low with the fever. To the inquiry, 'What has been done for her?' the answer by the husband was—'Nothing. I have no confidence in the physicians here. They kill more than they cure. I had rather risk my wife without than with their aid. I have just learned that you are very successful in your practice, and that you use but little medicine. And now if you think you can help my wife, I wish you would try; if not, do not hasten her end.' I told the family that the case was a bad one, and there appeared but little prospect of success with any treatment. I would do the best I could, and assured them that I would give nothing to hurt the woman. As was usual with me I made a show of doing something, but left no active medicine. Called again, and for two or three days found little or no alteration, the symptoms about held their own. After a while the woman began to mend. As soon as this fact was known in the neighborhood, I had other cases and lost none.

The cholera prevailed here a few years ago as you know. I had my full share of that, and, to say the least, was as successful in treating it as my neighbors, and made no more dependance on medicine in the treatment of it than I did in the treatment of other diseases. I will give you one example.—

I was called early one morning to go in haste ten miles to see a young man, from a family in my neighborhood, said to be in the collapse stage of the cholera. On my arrival, found another physician, who had been called in on the spur of the occasion, under an apprehension that the young man would not live till I reached there, about giving a heavy dose of calomel and opium. On consultation, after I had looked at the young man, I asked the other physician if I should prescribe for the patient. 'Yes,' he replied, 'I shall be happy to have you do so, for let who will prescribe for him he will die, and that soon.' I put a small quantity of powdered magnesia, eight or ten

drops of laudanum, with a little loaf sugar, into a tea-cup; filled it a third or half full of water; stirred it up, and gave the patient a tea-spoonful of it, and directed that quantity to be repeated every half hour, till there was a sensible alteration.

And before night I brought the young man home with me, sitting up in my carriage, quite comfortable."

EXPERIMENTS ON A LARGE SCALE ARE DECIDING IN FAVOR OF THE RIGHT ACTION THEORY.

In passing through the city of Rochester, some three or four years since, I called on a medical friend, and after a little discussion of the anti-medical subject, he said to me very pleasantly, "I have something here," (taking up a late number of a medical periodical,) "that rather favors your views." It was an account of a disease that was prevailing in France, about which there was a diversity of opinion. I took my pencil and copied from it the following sentences:—

"Mr. Bouillaud affirms that the disease must be a violent inflammation, because he cures it by extracting almost all the blood in the body. Mr. Delaroque is equally positive the whole malady must consist in the presence of saburræ," (filth, foulness of the bowels,) "because by submitting the small intestines to a process of perpetual scouring, he cures the disease. And, lastly, Mr. Piedaguel has stronger reasons than either for declaring there must be no malady at all, inasmuch as he cures more than any one by doing nothing at all." In a note it is stated that, "Of sixty cases allowed by Mr. Piedaguel to run their own course, three only terminated fatally, the lowest ratio of mortality ever obtained in France."

But, passing over a multitude of similar instances that might be adduced, I am willing to rest the case on the broad experiment of homœpathy.

This system of practice originated with a celebrated

German physician, by the name of Hahnemann, who had been thoroughly bred to the profession of medicine, according to the old school orthodoxy; but who, sick of the practice, from a settled belief that there was something radically wrong in both theory and practice, abandoned it, and turned his attention to other pursuits. But his powerful and active mind would not let him rest without making some further effort to discover in what the grand difficulty in medicine consisted. He instituted a series of experiments with different kinds of medicinal substances on himself and others, with a view to determine how such substances could be brought to bear the most effectually and with the greatest certainty upon disease. The conclusion to which he came was, that, in order to cure a disease the most speedily and with the least disturbance to the system, medicine must be used that would act directly upon the parts affected, and be of such a nature that it would produce the same kind of action in a healthy person that it was intended to cure. From this circumstance his system of medicine obtained the name of Homœpathy—from the Greek word, Ὅμοιος, or, in english, Homoios—likeness; and Πάθος—affection.

Carrying these views into practice, Dr. Hahnemann found from careful observation that the less of the Homœpathic medicine he used the better; the more expeditiously, effectually, and with the least disturbance to the system, were diseases cured. He reasoned in this manner:—A new disease must be created for the destruction of the old one; therefore, the lighter the new disease, if it will only accomplish its object, the better; for this will be thereby the more easily disposed of. Accordingly medicines were divided down to millionths of their atoms. And in order to secure the greatest amount of good from the medicine, the regimen must be such as to interpose no obstacle to its action.

The following extract from a little work giving some account of Homœpathy, written by a clergyman, will show how much stress is laid on attention to the regimen of the sick, while they are under the operation of Homœpathic medicine.

"The diet is such as to preclude the possibility of any interruption from substances which exert any medicinal action. All raw vegetable juices, all spices, all essences, all odors, all perfumes, all thei-form infusions," (herb teas,) "all that can by any possibility be supposed to exercise the slightest influence over the organism, are strictly and rigorously excluded; so that the pure, simple medicament may have the whole control over the organism, and be at liberty to act unfettered and undisturbed; and, at the same time, all mental exertion, or any shock that can in any way interfere with or divert the action of the medicament, is scrupulously avoided."

The success of the Homœpathic practice has astonished many discerning minds, not only of other professions and callings, but also of regularly and well educated medical men, great numbers of whom have left their old practice and gone into this on the strength of the conviction that its merits are superior to those of the other.

But it is unnecessary for my present purpose to give a particular account of the results of Homœpathy; they are now before the world, and well understood. What I now claim with respect to it is, that a wise and beneficent Providence is using it to expose and break up a deep delusion. In the results of Homœpathic practice, we have evidence in amount and of a character sufficient most incontestably to establish the fact that disease is a restorative operation or renovating process, and that medicine has deceived us. The evidence is full and complete. It does not consist merely of a few isolated cases, whose recovery might be attributed to fortuitous circumstances, but it is a chain

of testimony fortified by every possible circumstance. The experiment has been made on a large scale, conducted by men of talents, learning and integrity, who well understood the old system of medicine, and were capable of forming a correct estimate of the comparative merits of the two methods of managing disease.

All kinds and grades of disease have passed under the ordeal, and all classes and characters of persons have been concerned in the experiment as patients and spectators or witnesses, and that too under the full impression that, though simple, yet adequate means were being used for the removal of disease, leaving the mind quiet and undisturbed, and thus affording no ground for ascribing disease or the cure of it to mental excitement. And from the frank and open manner in which the whole system, in theory and practice, has been spread out before the public, all occasion for charging the cures to juggling or legerdemain tricks is effectually cut off. The care too which has been taken to exclude every thing from the sick that was in the least degree exciting, that the medicine given might act without restraint, precludes entirely the possibility of resting the cure on any thing in that direction; while the process of infinitesimally attenuating the medicine used was carried to such a ridiculous extent, that no one will, on sober reflection, attribute any portion of the cure to the medicine. I claim, then, that Homœpathy may be regarded as a Providential sealing of the fate of old medical views and practice.

SECTION VII.

MEDICAL DELUSION.

It would be needless to stop here and attempt to prove by direct argument, the *fact* of our delusion, for if I succeed in making out my case to the satisfaction of the reader, and obtain a verdict from him in my favor, the fact will be so far established; and if I fail to substantiate my case, I pocket the delusion, and there is an end of the matter.

The science and art of medicine were designed to serve as handmaids to nature, and it is generally supposed that they do perform this humble but kindly office; whereas, in reality, they are but the science and art of *war* upon the vital economy. Weighed down by a load of oppression beyond endurance, nature seeks a redress of her wrongs, in the only way that is open before her. But as these movements of hers are mistaken for rebellion, she is met by the doctor, and ordered to desist. And the more effectually and promptly to suppress these fancied rebellions, the anatomy and physiology of nature are thoroughly studied; her machine is subjected to the most rigorous scrutiny; and her modes of action well understood and defined. And all the substances that are to be found in the animal, vegetable, and mineral kingdoms, that are capable of affecting the motions of the vital machinery, are sought out, arranged in classes, and denominated according to their adaptedness to modify the action of particular parts; so that the doctor, when called to suppress a rebellion, has only to ascertain the kind and seat of it, and then go to his armory and select such weapons as will the most expeditiously and effectually reach the heart of the enemy, and thrust them home upon him. Now of all the de-

lusions that have ever prevailed in this deluded world, with but one exception, this medical delusion is the cap sheaf, the crowning piece.

I will notice two grand sources of this delusion.

First. The first and principal source of delusion is to be found in the strong upward tendency of vital action, in conjunction with another fact, to wit, the universal prevalence of the opinion, that unnatural, or unusual action or condition of the human system is an unfriendly one, hostile to the best interests of the system. Under such an impression, whenever the motion of any part of the body deviated very materially from the natural state, something of course would be done to turn back the motion; and although the means used might be detrimental to the system, and aggravate and prolong the diseased action, yet the curative efforts of nature would soon remove the difficulty, and throw the credit of the cure upon the means used. On a fair trial of leaving nature to work her own cures, I was surprised to learn the ephemeral character of most complaints, and, in ordinary, every day calls, seldom judged it necessary to promise or make a second visit, and leaving a few liliputian troops to watch the motions of the enemy, would say to the patient or friends, "If the case continues along a day or two without amendment, let me know and I will call again." And I could make out a large volume with the simple statement of extraordinary cures that occurred under my bread pill and water drops practice. The following case affords a little specimen.

A little girl about four years old, daughter of J. Hubbel, while playing in the door yard with other children, was rather suddenly bereft of sense and voluntary motion. When I arrived at the house where the little girl was, which could not have been very long after she was taken ill, (the distance from my house being about a quarter of a mile, and I was sum-

moved in haste,) I found her lying apparently in a profound sleep, from which the friends could not arouse her. It was an affection which physicians call catalepsy. I called for six tea-spoonfuls of water, and added from a small vial that I had with me, six drops of very choice Aqua Fontana Pura. Separating the lips a little, without using any violence to open the mouth, I dropped in a very little of the *mixture*, guarding against getting enough into the mouth to excite strangulation, as sensation should return, before consciousness should resume its office sufficiently to superintend the deglutition. This operation was directed to be repeated, with the same caution, once in five minutes, until the child should be able to swallow, when half a tea-spoonful of the mixture was to be given once in ten minutes, till the child was restored. I then passed on to visit a patient a short distance beyond, and on my return, (which was not more than twenty-five or thirty minutes from the time I left,) I found the little girl playing in the yard with her mates, as if nothing had happened. The account given me of the case was, that after the mouth had been wet two or three times with the potent medicine, the girl opened her eyes and looked around. Half a tea-spoonful of the mixture was then given, and in five minutes after she was on her feet as lively as ever. The friends and neighbors, (and a number of the latter gathered in on the occasion,) thought that I possessed some wonder working drops.

The *Second* source of delusion is the interruption, or breaking up for the time, of diseased action—or breaking in upon and postponing the repairing process.

That many of the diseases, if taken in season, and especially those of an intermitting type, may be pushed forward, there can be no question. A gentleman who was having the fever and ague, called on me to know if it might not be put off a while, as he had important

business that he wished to attend to for a few weeks, and it was inconvenient for him to do it while undergoing so important a renovating operation. He understood and embraced my views of disease. I furnished him with the necessary means and directions for producing a postponement of the repairing process. The work was suspended until the next summer, then resumed and finished without further molestation.

But the second source of delusion is most effectual in moderate indispositions, and short turns of disease, where a little play upon the law of stimulation produces immediate and sensible relief, makes the individual "feel a great deal better;" as the effect of a cup of strong tea in pushing forward a headache; mug of flip, hot ginger and cider, hot butter and molasses, milk and black pepper, &c., for breaking up short colds; and especially the action of alcohol in various forms, in elevating the feelings of its votaries, when these are in a state of temporary depression.

A case in point will show how fruitful has been the source of delusion of which we are now treating.

At a temperance meeting in Derby, the ground was taken that the action of alcohol on the living human system, was prejudicial in every form, and under all circumstances. The next day a few gentlemen that were at the temperance meeting, met at a store in the neighborhood, and were discussing that point, when Mr. B., then a tavern keeper, said he would show that the position was untenable; and then made the following statement:

"Capt. T. came into my house a few mornings since, said he was almost dead, and asked me for some brandy and water. He looked wretchedly, tottered as he came in, and his speech was so broken that I could hardly understand what he said. I poured out some brandy and water, and handed to him, but before he could get it to his mouth, he shook most of

it out of the tumbler; I filled another glass and held to his mouth till he drank it. He sat awhile, said he felt better, but wanted half a glass more. He carried that to his mouth without difficulty, and in an hour or two he could walk as erect and steady as I can, hold his hand as steady, and talk as plainly, and looked like a new man. Now I want to know if that brandy did not do that man good?"

There was an *appearance* of good done, and it was this *apparent* good that resulted from the use of strong drink, which deluded the whole world respecting its use. Every body thought that the moderate use of it was beneficial, especially to laboring men; indeed it was considered almost indispensable to this class of the community.

A very excellent man, in the prime of life, with a good constitution, a cooper by trade, to whom I had offered a temperance pledge for his signature, looked me strong in the face, and with much sincerity said, "Doctor, do you think that I can work, at my trade, without spirits?" What a delusion! In the same way, precisely, were we deluded respecting the use of medicine. We judged "according to the appearance," and failed to "judge righteous judgment." The same test—double experience—that exposed the alcoholic fallacy, will demonstrate the medical delusion.

Early in the Temperance Reformation, Dr. B., of L., then President of the Connecticut Med. Society, in a temperance address remarked, that "the principle laid down in the temperance pledge, that distilled spirits are not only unnecessary, but positively injurious to persons in health, was a modern discovery." It is only necessary to push this discovery a little further, to show that alcohol, and all other poisonous substances, are not only unnecessary, and positively injurious to persons *in* health, but much more so to persons *out* of health. There is but one

general principle on which poisons or irritants of all kinds act, when they come in contact with a sensitive part of the body, and that is, to "counteract the living principle," to oppose the law of life. It is no wonder that the unsophisticated mind of a child, which had learned something of the fundamental principles of temperance, should find a difficulty in the exception made in the old temperance pledge, in favor of the use of alcohol as a medicine.

"Father," said a little boy, holding up a temperance pledge, "what is meant here by, 'except as a medicine'?" "O," replied the Father, "we don't give up the use of spirits in sickness." "Why," rejoined the boy, "I thought that rum made folks *sick*—can it make them *well* too, father?"

It is said to be a poor rule that won't work both ways. Stimulants resemble the bad rule in this respect, they will not work both ways.

With the above expositions and illustrations of the main sources of medical delusion, the way is prepared for an examination of some of the difficulties and absurdities into which sects and individuals have fallen, in their theories of medicine, both among the orthodox and heterodox, or regular and irregular schools of medicine.

ORTHODOXY.

Professor Liebig says, "It is singular that we find medicinal agencies all dependent on certain matters, which differ in composition; and if, by the introduction of a substance, certain abnormal conditions are rendered normal, it will be impossible to reject the opinion, that this phenomenon depends on a change in the composition of the constituents of the diseased organism, a change in which the elements of the remedy take a share similar to that which the elements of food have taken in the formation of fat, of

membranes, saliva, &c., &c. Their carbon, hydrogen, or nitrogen, or whatever else belongs to their composition, are derived from vegetable, and after all, the action and effects of quinine, morphine, and the vegetable poisons generally, are no hypothesis." The share which the vegetable elements of food take in the formation of fat, of membranes, &c., is a very important one; the whole of the organism is constituted of vegetable elements, and can be constituted of nothing else. For if animal food is used in the formation of the organism, vegetable elements are the basis of animal food. If, therefore, medicinal substances produce "a change in the composition of the *diseased* organism," in any important sense, or to any considerable extent, analogous to the share which the vegetable elements of food take in the formation of the constituents of the *healthy* organism, they certainly must exert a very important agency in the cure of diseases. And as we can only judge of their ability to render abnormal conditions normal, by the phenomena that follow their use, "it will be impossible to reject the opinion that" the little bread pills, and water drops, which I used in my practice for twenty years, were very powerful transforming agents, for I have never witnessed, from the exhibition of other substances, any thing equal to the changes that followed their use, either in the celerity or magnitude and duration of the healthy transformation.

In the case of the little Hubbel girl, there were in all nearly three-quarters of a drop of Aqua Fontana Pura put within the lips and swallowed. How rapidly that must have changed "the composition of the constituents of the diseased organism!"

Prof. L. concludes that "the action and effects of quinine are no hypothesis." It is well known that quinine is very effective in rendering "abnormal conditions normal," in intermitting fevers, (at least apparently so for a while.)

Dr. Sheldon, of Litchfield, Ct., cured a man of fever and ague, by making him watch a yellow garter. The Doctor tied a yellow garter around a small tree near his house, and placed the patient in a chair within an open door, a short time previous to an expected fit, and told him to look steadily at the garter for one hour, and assured him that he would in that event have no more of the ague and fever. The man performed the condition, and realized the promised end. The "action and effects" of watching a yellow garter for one hour, are therefore, now, "no hypothesis."

Dr. Mussey, than whom few physicians have made higher attainments in pathological science, in closing some very pertinent remarks on the pernicious effects of alcohol on the human system, made extemporaneously at a temperance meeting, got himself into a dilemma by attempting to defend the use of alcohol as a medicine. I will quote some of the Doctor's remarks on the poisonous quality of alcohol, and more than is sufficient for my present purpose, on account of their intrinsic excellence and the important bearing which they have on the general object for which I am writing.

"That alcohol is poison to our organization, and tends to pervert moral feelings, is evident from observation. What is a poison? It is that substance, in whatever form it may be, which, when applied to a living surface, disconcerts and disturbs life's healthy movements. It is altogether distinct from substances which are in their nature nutritious. It is not capable of being converted into food and of becoming part of the living organs. We all know that proper food is wrought into our bodies. But poison is incapable of this. Such a poison is alcohol—such in all its forms—mix it up with what you may. It is never digested and converted into nourishment. All the evidence we possess is against such an idea. If it is ap-

plied to a living surface, it occasions inexpressible pain, heat and burning. * * * * Now must not that which is poison in the gross, be poison in smaller doses too? If it is utterly incapable of nourishing, its effects must be deleterious, if it have any, especially on vital movements, so multifarious and so delicate as those which go to make up the physical system of man. * * * * We are, therefore, bound to avoid all use of alcohol, both because it is a poison and will shorten our own life, and because the law of love binds us, as we have opportunity, to do good to our neighbor.

Let me present one illustration of this. A certain quantity of pure oil is necessary to the movements of a watch. If you give it this quantity, its revolutions may be regular; but if you mix a certain quantity of oil of vitriol with it, before the watch has run long, the regularity of its motion will be disturbed, and if it be continued the irregularity will increase, until at length its motion will cease altogether. The smaller the quantity of the vitriol, the slower will this process be. The greater the quantity, the more rapid. But the least possible quantity will have some effect, and the effect will always correspond with the quantity. If you want the watch to move well don't put any vitriol into it. So, if you want the human system to be healthy, keep clear of the poison of alcohol."

A very clear and strong case. And is it not true, then, that "we are, therefore, bound to avoid *all* use of alcohol?" The Doctor thinks not; for he adds in conclusion,—

"'But,' says an objector, 'do not you physicians often give poisons as a medicine?' We do: we are obliged to do so: but we use one poison only to drive out another. On this principle, if a man is in pain, we give him opium; we create a new disease that it may take the place of the old one; and we do this because the new disease is one which we can more

readily govern. This is the principle and the only principle on which we administer poisons. But all poisons injure the system, and no man in health can take them without great injury. Every poison, when taken as a medicine, is but the less of two evils;—let it be rolled in a pill, or disguised in a drop, it is poison still. It is true that we do the best we can; but it is no less true that the man would be better off if he had neither the disease nor the remedy."

The announcement of the reasons for giving alcohol as a medicine, which Dr. Mussey made in his closing remarks, brought Dr. Reese upon his feet to enter his protest against them.

"The physiology," said Dr. R., "with which the Convention has been enlightened, places us in a position truly ludicrous. Alcohol, it seems, is such a poison that it destroys the vital properties of the tissues of the human frame; but the Professor from Dartmouth, after he has proved to a demonstration that a single drop of alcohol is poison, then told you that he employed other poisons to counteract this one, and thus insinuated that after a man had committed one sin by taking alcohol, the Doctor had committed another sin in order to cure it. What, sir! Tell us that after a man has been poisoned by alcohol, we are to employ a poison ten fold more vehement, and so commit a sin ten times as great as he did?"

I suppose that Dr. R. would have agreed with Dr. M. in the necessity of giving poison in disease, though he would probably have given a different physiological explanation of their *modus operandi* in removing disease; and yet I doubt whether he would have given one much less ludicrous, or more satisfactory. And the fact that such a man as Dr. Mussey should give such reasons as he did for the use of poisons, is strong evidence that good, substantial reasons for such practice *are wanting*.

There are three parts of Dr. M's closing remarks, of each of which I will take a passing notice.

First, "We use one poison only to drive out another."

Second, "We create a new disease, that it may take the place of the old one; and we do so because the new disease is one which we can more readily govern."

Third, "The man would be better off if he had neither the disease nor the remedy."

First, "We use one poison only to drive out another."

If the administration of poisons were restricted to the literal meaning of this passage, there could be no objection to it. Whenever a poison is received into the human system, and we can reach it by the use of other poisons, and neutralize it, or destroy its activity, or procure its rejection from the body before it has expended itself, without doing more hurt than good, we are bound to do it. Or, if we can in any way lessen the evil that would result from the undisturbed action of a poison that has been received into the body, without inflicting as great an evil, we should do it;—as when small pox virus has been "taken the natural way," by inhalation, and we can be in season to shut the door against its action, by securing a milder operation from vaccination, or even from innoculation with small pox matter. But if the use of poisons was restricted within these bounds, physicians would have occasion to afford apothecary establishments but little patronage, unless families were to adopt the practice of keeping their doctors by them at their tables, with antidotes ready for use at the close of their meals.

If one poison has done its work—exhausted itself—it would be to no good purpose to send another poison after it. If Dr. Mussey were called to the bedside of a forlorn drunkard, he would not think of giving "one poison to drive out another." He would say the man has been sufficiently poisoned, and nature should now have an opportunity afforded her of restoring the

system, as far as that can be done, from the effects of the previous poisoning. If I am about to receive a blow on my head from a hickory cudgel, and some friend can interpose an iron one in season to save me from the pending stroke, I will be very thankful to him if he will do so; but if the blow is received, and I am felled to the ground, I beg of my friend not to attempt to restore me to my feet by other and heavier blows.

Second, "We create a new disease, that it may take the place of the old one; and we do so because the new disease is one which we can more readily govern."

This reason for the use of poisons has not the "shadow of a shade" for foundation to rest upon. It was first conceived and offered by Hahnemann, and has been generally adopted by his followers in Homœopathy, and has also been laid hold of by some in the regular profession, as a kind of dernier resort since the abandonment of the idea of making disease to consist in its symptoms.

While physicians were regarding the symptoms as constituting the disease, their avowed object in the use of means was, the removal of symptoms. In inflammatory affection they would bleed and use antiphlogistic remedies for the reduction of increased action; and in diseases of an opposite type, stimulants and tonics for the elevation of action, and give antispasmodics to cure spasm and allay irritability, &c., &c. But these subterfuges are now mostly abandoned, and physicians are put to their wits' end to give an answer to the question, "Why do you pour poisonous substances into the human system?"

My preceptor, Dr. Ives, said to a physician, "What do you expect from that mode of treatment?" (He had just given Dr. Ives an account of his method of treating a praticular disease.) "The cure of my patients," was his laconic reply. Until physicians can offer some more plausible pretext for dosing and drug-

ging poor suffering humanity, than they now do, they had better rest the practice simply upon the expectation of curing their patients. A friend at my elbow, to whom I have just read Dr. Mussey's reason for using poisons,—the creation of a new disease for the removal of an old one,—suggests that perhaps after all there may be something in it,—and says, "If you were to receive a severe injury on the head, and could have it commuted for a small sore on one of the lower extremities, would it not be a gain?" Most assuredly, *if* such a thing could be done,—but it is not among the possibles. The idea of relieving important parts by counter irritants and drains is fallacious, and has arisen,—as other medical fallacies have,—from the two sources of delusion considered above, with some help from the principle of contrast, one of the minor sources of delusion. It was from the operation of the principle of contrast that the man did "love to have his shins kicked, they felt so good after they had done smarting." If my head is broken, it will be of no use to try to mend that by breaking my legs. But let us try this principle of curing old diseases by the creation of new ones, in its application to a single case. Dr. M., says, "if a man is in pain, we give him opium, we create a new disease," &c. Dr. D., and myself were called in to see a young man affected with severe cutting pain through the region of the stomach, taken while at the dinner table. Here is the "old disease," fifteen or twenty minutes old. What is the difficulty? Dr. D., says irritability is at the bottom of it, give opium to allay irritability. I say that irritability is but a symptom, an effect, and that irritability and the pain are one and the same thing, that pain is the culminating point of irritability; and that *want of vital energy* is at the bottom of it. The usual appropriation of power to the parts now in pain has been diminished for an important purpose, and there is no pump, or other instrument or means by which we can add to the stock of

energy, for the supply of this want. Let the present arrangement alone, it is well adapted to meet the exigency of the case, and as soon as the necessary power can be spared consistently, it will be appropriated for the relief of the distressed parts. Opium will produce temporary relief, but how will it do it? Not by supplying power, or helping nature, but by counteracting the laws of health, goading and wounding sensitive parts, and thus calling into operation the law of stimulation, by which fresh forces are sent forth to sustain the feeble organs against the depredations of the enemy,—and in this way a double injury is inflicted,—the previous injury of the nerves of sensibility is increased, and the vital power still further diminished, the result of which will be augmented irritability,—only as the operation of the restorative principle under favorable circumstances may interpose in season to prevent it. And in such an event, no thanks would be due to the opium, for the renovating process would be retarded to the extent of the counteracting influence of the opium. What then is gained by the action of this poisonous substance? A little temporary relief, at an increase of the old difficulty. Instead therefore of saying that the opium cures the old disease by creating a new one, we should say that it has removed the *new* disease by *adding* to the old one,—just as many men get rid of a new and pressing dun, by borrowing money, and thus adding to their old debt, with compound interest accruing thereon. Give opium to cure a man of pain! Who has pain equal to the opium eater? As well give cider to cure a man of sore eyes.

Our nomenclature of medicine needs revision and modification. Opium, instead of being put down as anodyne and antispasmodic, should be classed as an odyne, and spasmodic,—and the whole class of tonics should be ranked as atonics. There is no such thing as a strengthening medicine. The manner in which

the substances called tonics act in strengthening the human system resembles Corporal Trim's method of marching—"*Advance!* five paces *backwards.*" Or the progress of the frog in the well, *two* feet out in the morning, and *three* back at night.

Third, "The man would be better off if he had neither the disease nor the remedy." If by saying that the man would be better off without the disease, Dr. Mussey intended to include the whole difficulty, the condition of the system which occasions the developments that obtain the name of disease, as well as the phenomena themselves, the assertion is correct. But if the sentiment contained in the remark respected only the disease in the common acceptation of the term, embodying only the symptoms, it is very far from being correct. That the latter was the Doctors meaning would appear probable from the connection in which the sentence stands,—and yet there is some reason for believing that Dr. M., held other views, or has since changed them; for the remark was made quite a number af years ago. A gentleman who had heard something of my views of disease, and who obtained an introduction to me for the purpose of getting further information on the subject, observed that he presumed Dr. Mussey agreed very much with me in regard to the nature of disease: for, said he, a lady applied to the Doctor for means to cure her of some affection to which she was subject by spells. Dr. Mussey's reply was, "I would not prevent these turns for you if I could, they are as necessary for your general health, as thunder storms are for purifying the atmosphere." But I shall offer a few strictures on the sentence which I have quoted as if it meant what it appears to, and what it would be generally understood to mean, for it is the delusion couched under the idea here referred to, that I wish to explain. Most physicians believe with Dr. S——,* "that disease is wrong action, and to be depre-

* See objections by Dr. S., in the eight section.

cated, and as far as possible prevented." There are however a few forms of disease, that physicians and others would agree had better have their course, after a foundation has been laid for them. If a man, who was exposed two or more weeks ago to the contagion of Small Pox, unshielded in any wise from its action, is beginning to complain, and is exhibiting some symptoms of the small pox, no one would say that his having a regular course of the disease was "to be deprecated, and as far as possible prevented." If a physician was called to treat a disease, and, under the impression that it was Pneumonia, should bleed the patient and use other means for subduing diseased action, and were at length to find that he was dealing with *Measles* instead of *Pneumonia*, he would desist at once from his break up efforts, and let the Measles "come out." And the friends would feel like giving him a severe reprimand for attempting to "stop the measles." But why not stop "the measles," as well as stop a Pneumonia?

Dr. Smith says of typhus fever, "If it arise from a specific cause, and has a natural termination, it may be a question how far we are to attempt a cure of it, or if we possess the power, whether we can with propriety cut it off in its commencement, and by art prevent its running its course." Dr. Smith had been led to regard typhus fever as the legitimate result of the action of specific contagion, hence his query with respect to the propriety of any efforts to break it up, or by art prevent its running its course. Where the connection between cause and effect is intimate,—the latter easily traceable from the former, when such cause operates the natural consequences are expected to follow as a matter of course. But when "sentence against an evil work, is not executed speedily," when the connection between cause and effect is remote and obscure, the causes of disease may be kept in operation from year to year, and from generation to generation, and when

the effects become troublesome, they are "to be deprecated, and as far as possible prevented."

"Affliction cometh not forth of the dust, neither doth trouble spring out of the ground." The medical delusion shows itself in a great variety of forms. By virtue of the first—or principal source of delusion,—the strong upward tendency of vitality—every plant in the vegetable kingdom, from deadly night shade down to harmless bugle weed, has become renowned for some healing virtue. And from the same source of delusion, physicians often mount their hobbies and ride for a long time to the great amusement of each other. One physician with whom I used to come in contact frequently, must always have a little *soluble tartar* in his prescription, for he "had known it do *wonders*." Another physician was very fond of giving *iron* in some form, for he had "had patients *fat* on *iron*."

From the second great source of delusion, the *apparent* benefit sometimes produced by playing upon the law of stimulation, has arisen the yet too common practice, though much less common than formerly, of using desperate means in desperate cases. On my first settlement in the profession, a highly valued medical friend told me that in doubtful cases of fever, a free use of calomel was his dependence, for, said he, "where I can produce a mercurial impression, I am sure of my patients,—and where I cannot, I loose them." He believed, and justly as I then supposed, that the calomel wrought the cures in the saved cases, and failed in others from meeting with something in the system that neutralized it, or in some way prevented its action. In these cases, according to my present view of the matter, the mercury operated as a TEST, showing which possessed vital energy enough to recover, and which did not. In this lay the fallacy. The action of the calomel in all cases could but

"counteract the living principle;" and in balancing cases must turn the scale against life. In fatal epidemics it has been found that some active agencies soon drop the power of life below the point of recovery. This was especially true in the early part of an epidemic that prevailed in Connecticut in eighteen hundred eleven and twelve, originating in New Milford and called the New Milford fever. Blood letting only to the extent of a few ounces, in most of the cases in which a trial was made of this remedy, was almost as sure death as opening the carotid artery would have been; though in a few cases it *seemed* to exert a surprising power in overcoming disease. The extraction of blood operates as a powerful counteracting agency upon the laws of life,—and it is from this circumstance that the operation derives its delusive character. If there is power to be rallied, drawing blood will rally it,—and, on the other hand, if it be an extreme case, if there be just vital energy enough to keep the wheels of life in motion, the interposition of so powerful an opposing obstacle stops them. From this property of blood letting and other active means that are sometimes used as remedial agents in doubtful cases, has arisen the "kill or cure" practice. Though to the credit of the regular profession I would say, that I have never known an instance of means being used under an assurance that it would either "kill or cure." When physicians give medicine it is with the belief that under the circumstances of the case, its tendency is decidedly to aid in the cure of the disease; though they would not be guilty of the foolery of believing or saying that, "if the medicine did not do any good, it could not do any hurt." They know very well that active means will do something, but they refrain from using them, unless in their opinion, the circumstances are such as to warrant the belief that they will act in the right direction.

VITALISTS.

That class of vitalists only are here intended who hold that the proximate cause of disease consists in "an altered state of the vital forces." (The writer is a vitalist.)

These theorists constitute a large and respectable class of the profession, and they are much in advance of both humorists and solidists,—indeed they seem almost to have caught the true idea of disease, and yet the error on which they settled is scarcely less absurd than the errors which they have exposed and rejected, and the practice which they recommend equally mischievous with the old practice.

Illustration of the vitalists delusion.

A large family, inhabiting individually and by small associations or circles, distinct departments of a spacious edifice are in trouble, some portions of the inmates are suffering severely from cold. A vitalist is called on to devise and direct ways and means for relief.

Opinion or theory of the vitalist.

1. *Negatively*, The disturbance is not attributable to any ill condition of the members of the household, or the irregular action of parts, how much soever these may differ from their natural state,—these changes are but the *effects* of a cause that lies back of them. Nor does the difficulty lie in a deficiency of the principle of warmth, but,

2. *Positively*, The cause of all the difficulty in the case consists in 'an altered state' of the principle of heat,—the caloric has suffered a change in some of its properties or qualities, and this change must be reversed. And in the fulfilment of an indication made out in any given case, remedies of the same general character will be resorted to that are used by physicians who hold other views of disease. For example: if the case is an inflammation, bleeding and an an-

tiphlogistic regimen will be employed, because these are found on experience to change the abnormal to a normal state sooner than other means,—and as the vitalists hold in common with other physicians to a present positive wrong, that is susceptible of rectification by art, they therefore find in common with others too a confirmation of their theory in the apparent cure of disease.

How strange that sensible men when treading on the verge of the true theory of disease, should after all make such a slip. They had been driven to the conviction that the cause of the difficulty *must* be in or about the vital forces, and yet instead of coming to the simple and rational conclusion that it consisted in a *deficiency* of these, they adopted the preposterous notion that it lay in "an altered state, of them! But I must pass on to consider some of the delusions that are to be found among the

HETERODOXY.

Homœopathists. I hesitated whether to rank this class of operatives among the "regulars," or "irregulars." So far as my knowledge of them extends, they are the flower of the profession. Men of talents and worth. Men too who have been well educated in the profession, and had acquired a good reputation in the practice of medicine according to old school orthodoxy,—but who were driven to a change of views and practice by the observation of facts. And furthermore their present practice, in my apprehension, is nearly faultless,—so high an estimation have I of it, that I uniformly advise my friends who have them living within call, to employ them in their families, when they need a physician, and if one of them were living within reasonable distance of my family, I should have him called in my absence, to attend upon the sick. Yet they are regarded as out of the pale of the profession, and so

strong is my love of law and order, that I conclude for the present to class them with the heterodoxy; trusting however that it will not be long before the bands of fraternal regard and attachment will be thrown around them by an enlightened and purified orthodoxy. In our present degenerate state, we must have physicians; and the spirit of the age demands that these should see eye to eye in their physiological and pathological views, and be able to give a reason for their method of treating disease,—which common sense can understand, and community approve.

The present epoch is peculiarly favorable for effecting the changes necessary for such a result. In no prior age of the world has the Medical Faculty embodied so much cultivated talent of an equally high moral tone, and though popular confidence in medical practice has greatly waned from what it was in former ages, it has not declined towards the men themselves. The present medical organization is favorable for the remodeling of their temple of science and their practice. There are also many new and important physiological facts that have been elicited by the temperance reformation and otherwise, that can be used to great advantage in remodeling and perfecting the medical profession. And, above all, the invisible hand that is guiding and fashioning the wild discordant elements of general reform, will not neglect this important department of it.

There are two delusions peculiar to Homœpathists:

The *First* consists in supposing that they have discovered a new principle in the administration of medicine.

The *Second* in supposing that their infinitesimal doses of medicine perform cures in disease.

First. Dr. Hahnemann, in attempting to strike out a new course in the treatment of disease, only whirled about, as many reformers do, without being aware of it, into the old rut again. He has merely vamped

over and put into a pretty Greek dress the old adage —"The hair of the same dog will cure the bite."

Physicians have always aimed to practice on the principle of making the medicine act directly on the parts affected, and they have endeavored to select such substances as nearly as they could, that would produce "like affection." This has been their sole object in studying the anatomy and physiology of the parts, and in the classification of their remedies. Indeed, this principle of administering poisons is naturally fallen upon by all who use them. In a sound state of the body, no one ever relishes, or desires the action upon him, of a stimulus or poison of any kind. But when some parts have been injured and reduced in their action to a complaining point, the individual wants to get rid of the disagreeable sensation, and will try to get something that will "go right to the spot." If rum has occasioned the depressed action, alcohol in some form will be resorted to for its elevation; if tobacco, a strong quid of tobacco; if tea, a strong cup of tea; and so of all other poisonous substances. Those irritants that act on any particular portion of the system, to enervate or enfeeble it, will, while there is excitable power remaining in the part, more readily than any thing else, give a temporary elevation to the action of the part; and next to these, other substances that the most nearly resemble them in their active properties, whether they are administered by a diplomatist or an unlettered domestic. And such elevation has been thought to be giving nature a *lift*, whereas it is only "the Irishman's hoist—a peg lower."

It is on the homœopathic principle, as I have endeavored to explain in a former section, that local chronic affections and hereditary diseases are produced.

The *Second* Homœopathic delusion, that of supposing that their minute doses perform the cures, can hardly

need further explanation. Homœopaths take the common ground, "that disease is wrong action and to be deprecated, and as far as possible, prevented;" and finding from extensive observation that the smaller the dose, the sooner and better the disease is cured, are forced to the conviction that the little dose performs the cure.

To the inquiry which I have put separately to a number of Homœopathic physicians, "How is it possible that so litte medicine can do so much?" the answer has uniformly been, "I cannot tell, but here are the facts. How can we get rid of the facts?" I find no difficulty with the facts, since I have seen diseases vanish like the morning dew in so many instances, before my little bread pills.

THOMPSONIAN DOCTORS.

The paramount delusion of this sect of medical practitioners consists in supposing that they "use as medical agents, only those medicines which neither endanger the lives nor injure the constitutions of those who use them, and yet such as are thorough and efficient in removing diseases, both acute and chronic." These practitioners appear to be perfectly honest in the avowal of an opinion, that there are some poisons, or active medical agents, that are perfectly harmless to the human system; that they may circulate freely through any and every part of it, without doing the least injury, or occasioning any disturbance, unless they come in contact with an enemy of life, when they immediately give battle, and then more or less disturbance may ensue.

A short weasel story will illustrate botanic medicine. A neighbor of mine, of former days, in the good old State of Connecticut, kept a weasel on his premises as a panacea for rats and mice. I inquired of him whether the remedy was not worse than the

disease. "Oh no," said he, "we never know that the weasel is about, only when rats and mice invade our territories, and then there is a terrible fuss and squealing till they are killed or expelled the coast."

That the idea that active poisons could be tolerated in the human system with impunity, should ever enter and find a lodgment in the noddle of a rational being, is *prima facie* evidence of gross delusion. The immunity here spoken of is granted only to vegetable substances. Mineral poisons are on no account to be used as remedial agents, and hence it has come to be a very common inquiry, "Does the medicine contain any mineral substance?" And if the answer is, "No, it is purely vegetable"—it can be swallowed without any further questioning, pro or con, about it. Now those who know any thing correctly about the matter, know that the vegetable kingdom furnishes not only by far the most numerous class of poisons, but also the most active ones. Even tobacco, in a concentration of its active properties, is more immediately fatal to animal life, than any mineral substance that can be found. It is true that the vegetable poisons have a peculiarly genteel sort of way of doing their murderous work. Some of them are so expert in working their smooth, sharp edges through the cord of life, that many of their victims cannot be made to believe that they have performed or are performing any deleterious operation upon them.* There

*The comparative efficiency and adroitness of life-taking substances, from the vegetable, animal, and mineral kingdoms, may be illustrated by the story, (fabulous, of course,) of a trial of decapitating skill of an American, Englishman, and Frenchman.

The sovereign of a barbarous nation, called up three officers, American, English, and French, who were prisoners of war, and offered liberty to the one who could the most dexterously sever a man's head from his body. Each had his subject brought forward. The Frenchman, after a little flourishing of the sword, cut off the head of his subject very handsomely at the first blow. It was thought that nothing could equal that. The Englishman tied a narrow tape around the neck of his man, and with one blow cut every thing clean, through

is one of the *inoffensive* medical agents, lobelia, used by the botanic doctors, that I feel constrained to offer a few remarks upon. At a recitation on botany, in 1810, before Dr. Thompson was known to the world, we were informed by our preceptor, Dr. Ives, that the lobelia would ordinarily operate very mildly, and with a good degree of certainty upon the human system, but it had the peculiarity of acting harshly on some constitutions, and in some cases would destroy life, and on this account had nearly gone into disuse. In consequence of this information, I never used lobelia in my practice. But the history of its operations, as furnished by botanical practice, has confirmed the correctness of Dr. Ives' account of it.

It would require a volume to give a full account of the delusive and ruinous effects of the Botanical practice. The scorching, withering influence of "hot drops" and hot powders, on the fine and delicate frame work of the whole body—the system of capillary vessels—is disastrous beyond description; and nothing can exceed the delusive nature of their action and effects. Touching very gently, yet so extensively, such tender cords, relaxed and drooping from previous super tension, and causing them to respond for the moment in something like a thrilling sensation of healthy action, it is no marvel that the individual should be favorably impressed with their operation, and conclude that they are "helping nature." And when this undermining process is carried so far that the depressed condition of the capillaries can not be elevated to a satisfactory pitch by the ordinary routine of gently playing upon the law of stimulation;

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the center of the tape. Well, certainly, nothing could exceed that. But the American, nothing daunted, steps up unceremoniously to his subject, draws his well tempered and trusty blade, strikes his blow, and returns the sword to its sheath; when his victim cried out, "There, you never touched me." "Didn't I?" said the Yankee; "Spit.' In the act of which, his head fell off.

to be "put through a course" of treatment; served with lobelia, aided by steam bathing, rubbing, &c., &c., conjoined with augmentation of internal stimulation, until the enfeebled vital forces, but partially recruited, are compelled to resume their wonted task, and thus apparently afford fresh manifestation of the healing efficacy of Botanical steam power, is "topping the climax" of delusion.

The effect of this practice is, to wear out, gradually, and almost imperceptibly, the excitability of the capillary vessels; to sap the very foundation of healthy action and of life, and this too on a purely Homœopathic principle. I have known a number of Botanic doctors fall victims to their own practice. And this system of medicine is deeply hostile to the temperance reformation. The internal use of the heating medicine creates a morbid appentency for stimulation, almost equal to the use of alcoholic liquors.

I had thought of passing by in silence the other departments of medical heterodoxy, but lest Dr. B., the prince of quacks, should consider himself slighted, I will remark, that Dr. B. supposes that man has but one disease, "an impurity of the blood." His medicine, therefore, acts on the principle that one impurity works the purification of another; so that *vile* humors of the blood are cleansed by his *viler* pills.

In the course of the preceding sections of this work, a number of particulars have been mentioned, in which the right action theory avoids serious difficulties that are involved in the wrong action theory; it will be in place to mention another one here.

It has been contended by many physicians that disease can never be general in its origin; that it can never fasten upon and derange the action of a whole tissue or class of working agents at once, but must have a starting point; and hence it is of the first moment in all cases of general derangement, to ascertain the *locality* of disease, the point where the effer-

vescence or outbreak commences, that the spirit and power of rebellion may be met and subdued at its fountain head. Now this is certainly logical according to old school views; for it is not credible that an entire tissue of vessels, or system of organs should revolt at once, unless Van Helmont was correct in supposing that all the motions of the body were under the immediate influence and control of a presiding genius, and that this Archæus, as he was pleased to call it, should premeditate and devise revolutinary and subversive movements. And yet it is most manifest that general derangements do very frequently occur, in which there is not the slightest evidence of a local origin. But all difficulty on the subject is avoided by the right action theory. According to this theory, parts become tired and flag in their action from want of sustaining energy, and the derangement will extend as far as the lack of power extends, affecting a part of a tissue, or one whole tissue, or the whole system, as the case may be. Nothing can be more simple and obvious than this truth; and it may be urged as an evidence of past medical delusion.

But I have introduced this topic here more particularly for the purpose of noticing a dilemma into which the irregular part of the profession, or rather trade, are frequently thrown by virtue of the common notion of disease in the particular above referred to.

As disease is personified, and given "a local habitation," it must of course have "a name," and it has come to be regarded as of the highest importance that physicians shall not only understand the *nature* of disease, but also be able to know and call it by name.*

*Dr. Rush was in the habit of lecturing his pupils annually on this point, and to impress them with the importance of always having a name ready for every disease, would relate the following anecdote:

"A gentleman in Philadelphia called in his regular physician to see a member of the family whom the Dr. deemed it expedient to bleed.

Now men who are well versed in nosology, will generally find no difficulty in being prepared with names for their diseases; but those who "come in at the back door" of the art—who are qualified and authorized to practice by the purchase of a book—are often "put to their trumps" to furnish a name for the malady for which they are prescribing. To their credit, however, it must be acknowledged that they are industrious in the improvement, and ingenious in the use of their inventive faculties. One of these gentry who was treating a lady for a nervous difficulty, to which Cullen might have been puzzled to give a regular systematic name, was asked what the disorder was, and in a manner and with an emphasis that demanded a prompt and categorical answer. Nothing daunted, the Doctor replies, impromptu, "Madam, yours is a *scrutununtury* case."

L. "*Scrutununtury* case, Doctor! What is that?"

Dr. "The nerves have fallen into the *pyzarrum*, and the head goes *tizzerrizzen*, *tizzerrizzen*, *tizzerrizzen*."

L. "Aye, that is my case, Doctor, exactly."

But these would-be doctors are the hardest pushed when they happen to be brought in contact with regularly educated physicians.

As it will not be inappropriate to the subject of

During the operation a small swelling rose up about the opening that had been made in the arm, which is technically called ecchymosis. The Doctor was asked what the swelling was, and instead of giving it a *name*, he explained the thing, said it was occasioned by blood escaping into the cellular substance, or loose texture of the part, in consequence of the orifice in the skin being too small for that in the vein; and added that the blood would soon be absorbed, and that no uneasiness need be entertained on that account. But this was not satisfactory.

Another physician was called in, who pronounced the disease an *ecchymosis*. This "hit the nail on the head." The ecchymosis Doctor was thereafter retained as the family physician, and the former one dismissed.

"Be sure," said Dr. Rush, "to *ecchymosize* your patients."

the present section, I will present the reader with a couple of specimens of such meetings.

First Specimen.—A gentleman who had been confined for a considerable period with a scrofulous sore foot, asked his attending physician, Dr. W., if he was willing to have Dr. (empiric) F. meet him in consultation.

"O yes," said Dr. W., "surely. He will do no harm."

After Dr. F. had examined the case to his satisfaction, Dr. W. said to him, "Well, Dr. F., what shall be done for the foot?"

"I think we had better perform the operation of *bronchotomy* upon it;" replied Dr. F.

"What," said Dr. W., "cut the man's throat to cure his foot."*

Second Specimen.—A man by the name of Brandon, a resident of Milford, Ct., who had obtained considerable notoriety for skill in curing chronic diseases, was called to Farmington, some thirty or forty miles, to see a sick man. After visiting his patient, he put up for the night at a public house in the neighborhood. In the morning, as his early potations began to play upon his bump of consequentialness, and set him to cutting heavy swells across the bar-room, he says, "I wish I could see one of your doctors, and have some *conversatione* with him on medical subjects." Presently, the able and accomplished Dr. Todd, then a practitioner in Farmington, afterwards, to the close of his life, superintendent of the Insane Retreat, Hartford, appeared in sight, was beckoned in by the landlord, and made acquainted with Brandon's expressed desire for medical conversation. Dr. Todd introduced a topic for remark. Brandon says, "I don't understand English very well, [French was his native

*Bronchotomy is an operation for establishing artificial breathing, in cases of total obstruction of the wind pipe. The term is derived from two Greek words, bronchos, wind-pipe; and temno, to cut.

tongue,] if you could converse in Latin or Greek, I should like it." Dr. Todd opens upon him in Latin, but finds him quite from home here. He then tries him in Greek, and there too he is equally a stranger. Upon this, Brandon takes his hat, makes a polite bow, and says, "I be in one very big hurry this morning."

Brandon was afterwards prosecuted for mal-practice in a case which he attended in Cheshire, and stripped to the "skin of his teeth," to make amends, as far as property could do it, for the mischief which he had occasioned. He was tried in New Haven, in 1810. I was a student of medicine in that city at the time, and was present at the trial.

SECTION VIII.

OBJECTIONS ANSWERED.

THE habit of opinion, like all other habits, when long established, "is a powerful thing." And there are but few opinions that can boast a greater antiquity, and more universal and less unbroken possession of the human mind, than that of regarding disease as in some important sense unfriendly to life and health. It is not strange, therefore, that the announcement of an opposite opinion should start a countless host of objections. In making a selection from the mass of objections that have been made to me against my views of disease, I have endeavored to take such as would enable me to give answers that would meet most of the difficulties that any view of the subject would be likely to present; that those who think favorably of the new views and are disposed to adopt them in practice, may be strengthened a little thereby in their purpose, and also have some aid in their defense of these views.

OBJECTIONS BY DR. D. OF O.

Dr. D. Are there not some diseases that do not of themselves prove curative, and that would continue while life lasted if they were not broken up?

Ans. There are two forms of disease, the lues venera and the scabies or itch that need the interposition of art, not for the purpose of breaking up diseased action, but for the removal of the cause of that action—the destruction of animalculæ, or the neutralization of an active virus that possesses the power of self-perpetuation beyond the dislodging ability of nature.

I suppose, Dr. D., that you will allow that the diseased action in these cases is first produced by some cause—that it does not spring up spontaneously. Now if that cause ceases to act, either through exhaustion of power by natural decay, or from an expulsive effort of nature, why does the disease continue against the strong restorative principle of the human system?

Dr. D. It is continued by the power of habit, as many other forms of diseased action are; and this habit needs to be broken up that healthy action may be resumed.

Ans. Power of habit! Vital action thrown into disorder by some violent cause, and the disordered action continued after the cause is removed by the power of habit! I could as soon believe that a cannon ball fired up into the air, would continue to whiz and whirl on in its eccentric career, after the centrifugal force of the powder was exhausted, "from the power of habit."

Dr. D. But you know that we are very much under the influence of habit; that man is said to be but "a bundle of habits."

Ans. I admit the almost omnipotence of habit in man, over his feelings, thoughts, sentiments, purposes, appetites and passions,—yea, over all there is of him in being and action—mental and physical, voluntary and involuntary,—both of good and of bad habit; for good habits, when as firmly fixed, are as strong and enduring as bad ones. It is as true that "train up a child in the way he should go, and when he is old he will not depart from it," as it is that train up a child in the way he should not go, and when he is old he will adhere to it. And, fortunately for our unfortunate race, the vital forces have never contracted any other than good habits; they have not yet learned the art of doing wrong; but, true to the laws of their being, they always do the best they can. When forced from their natural position by overbearing force, they recov-

er that position again with as little delay as possible, when circumstances will admit of it. A want of knowledge of this important fact, or a disregard of it, has been productive of unlimited evil in all kinds of disease, but especially in those varieties of it now under consideration, or at least one of them. In cachectic or sickly habits and feeble, debilitated constitutions, where dispatch cannot be made in the healing process, the impaired action will often continue for a considerable period after the cause is exterminated, with the best treatment,—and under a mistaken impression that the disease is kept up by a continuance of its cause, the powerful means necessary in a measure for the removal of the cause are continued, and the poor patients linger on for months and sometimes years, and not unfrequently die at last—not of the disease, but of the Doctor.

Dr. D. In your illustration of the laws of life by the mill, you made one important omission. You said nothing of a pump by which the mill supplies itself with power.

Ans. I know of no mill, animate or inanimate, that has such a pump. If a mill could supply itself with power, we might have perpetual motion. And if the human system possessed this faculty it might prolong its existence *ad infinitum*, for it could make itself over as often as would be necessary for its perpetuation.

The living, human mill has and of necessity must have, while it *lives*, a regular supply of power; but a self-supplying pump, if there is such a thing, is not yet to be found among the recorded discoveries of anatomical researches. There is no lack of instruments by which power is expended, but no one has yet been discovered that furnishes a supply. Begin with the process of mastication, and follow the train of consecutive action through deglutition, digestion and the transportation of the nutrient material to the myriads of busy factories, and you will find an unbroken suc-

cession of power expenders, but not a solitary instance of self-supplying power pumps.

A muscle cannot be made or used, not a finger can be moved, not the slightest function can be performed, not even the mind can be exercised in the conception of a single idea or in giving utterance to one, without an expenditure of vital power. And search where you will, "from the crown of the head to the sole of the foot," and you can find no pump by means of which you can generate or elaborate power, or in any wise increase the general stock or ultimate supply. You may play upon the law of stimulation, rally the vital powers by the use of provocatives, and thus bring a larger amount of them into the field of action for a given time than would otherwise be brought out. But in doing this you would only be accessory to an unprofitable expenditure of them.

It has been by just such a process as this that physicians have been deluded on the subject of medicine, and the world on the subject of stimulants in general.

Dr. D. Do you believe with Van Helmont that there is a genius or intelligent spirit, distinct from the human soul, that has its seat somewhere in the brain, from whence it takes cognizance of the condition and wants of the body, and directs its movements?

Ans. No, no more than I believe that there is an intelligent spirit resident in the head of the weather cock which is perched upon the top of yonder spire to direct its movements. The latter as it stands aloft in guilded, unconscious dignity, reflects the intelligence and wisdom of its maker by rendering prompt and perfect obedience to the simple law of its being,—keeping its head and front always to the wind—changing its position at the slightest impulse. In like manner the human body, in the individuality of its countless number of organs, and in its corporate capacity, exhibits indubitable evidence of infinite wisdom and benevolence in its Contriver and Maker, by yielding

a ready and cheerful obedience to the complex laws of *its* being.

Dr. D. You believe that one organ sometimes takes on vicarious action, and performs the office of another organ different from its own proper function. Now if organs may and do thus perform different kinds of action, may they not sometimes perform wrong action?

Ans. How the fact that an organ may or does sometimes perform two kinds of *right* action, qualifies or disposes it for performing *wrong* action, I have no faculty for comprehending.

Dr. D. If disease be a repairing or recruiting process, why do persons ever die after the work has been fairly commenced? I can understand how they might die before the work was begun, but after it was once fairly commenced I should think it ought to save them.

Ans. A number of reasons can be assigned why persons die after a repairing operation has been begun. In some cases the vital forces are nearly exhausted in most or all of the essential organs, and could hold out but a little longer under the most favorable circumstances. A small wound or injury will now occasion death sooner than it would otherwise have taken place, although an attempt will be made to repair the injury.

Again, the most robust and vigorous constitutions may be injured in some of their important organs beyond the possibility of recovery, and fail after a process of repair has been commenced. The injury may be inflicted in different ways, and by various means or weapons, such as contagions, falls, blows, cutting instruments, &c., &c. If life is not destroyed at once, an effort will be made to repair the injured parts, and this process will progress while there is power to sustain it; but when the power fails, or ceases to be adequate to the restoration of the disabled parts, these must give out, and being essential to life themselves,

with their failure all the other parts of the vital machine must fail too.

And sometimes the Doctors get in the way and prevent recovery, after the work of renovation has been fairly begun and might have been prosecuted to a successful issue but for their well meant yet unfortunately fatal inteference.

And now, Dr. D., let me inquire, in my turn, why persons ever get well after the pulling down process (for disease must be either a building up or pulling down affair) has been well advanced, and nothing done to disturb or check it? I can readily understand why persons should recover after the work of destruction (allowing it to be of that character) has made considerable progress, provided a valiant and skillful Doctor interposes his veto. But when there is no counteracting influence brought to bear upon the work of destruction, to stay its progress and turn it back, and this moves steadily forward from day to day until to all human appearance the ruin is nearly complete—how is it that, under these circumstances, persons recover?

Ans. by Dr. D. I acknowledge that I cannot tell.

Dr. D. But you will find it difficult to convince people that distressing sickness is a kind friend, and performing a good work for them.

I was called one morning to visit Mr. C. and found him in great distress with pleurisy. A smart bleeding relieved him immediately, and a little medicine finished the work. In a day or two he was about and quite comfortable. I wish you would go and sit down by that man and see how long it would take you to convince him that the pleurisy was making him a well man.

Ans. It might take me some time to convince Mr. C. that pleurisy was a restorative operation, but I have succeeded in convincing many others that it was so. I will give you a very good counterpart to the case of Mr. C.

I was called to Squantuck, a distance of four miles, the latter part of a dark, cold and stormy night, to see Mr. Cyrus Botsford, who, in size and constitutional structure and energy, will compare very well with Mr. C., though the stoutest man of the two. The messenger urged me to put spurs to my horse, for the man, he said, was in great distress, and might not live till I got to him. On arriving within twenty or thirty rods of the house, we heard his shrieks. It was an acute inflammatory Lumbago. Mr. B. had been three or four days under the renovating process, but it had not reached a frightful or intolerable point until the night on which I was called. Inclemency of weather was the occasion of delay in sending for medical aid until so late a period in the night.

Without unnecessary delay, I rolled out six famous *little* pills, and gave one instanter, and directed the others to be given at the rate of one once in two hours until there was a favorable change—with positive orders not to exceed that rate in any event—and to stop the pills entirely as soon as there should be any considerable abatement of the disease. I was satisfied from the history of the case and the symptoms that the heaviest part of the repairing operation was over, and ventured to give a favorable prognosis.

Three or four weeks afterwards, on meeting with Mr. B., he gave me a very cordial shake of the hand and said—"Doctor you don't know how much good your little pills did me. What in the world were they made of? The stuff must have been very powerful to have so little of it accomplish so much. I began to grow easier soon after you left, but when the two hours were up, I ventured to take another pill, for it was so small I thought it couldn't kill me at any rate. I soon fell asleep, and had no distress of any consequence afterwards—and I hardly ever felt better in my life than I have done since."

Dr. D. How many fits of apoplexy do you think it would take to repair a man pretty thoroughly?

Ans. One would generally be sufficient, if no obstacles were interposed to a thorough doing up of the work, and if there were thence a teetotal abandonment of all causes of apoplexy, and all the laws of life were rigidly obeyed. About twenty per cent of apoplexies, of the first occurrence, would terminate fatally under the best of management—as they are commonly treated, by bleeding, &c., about twenty-five per cent die.

Dr. D. I can go with you in part, in your views of disease. I discard entirely the humoral pathology, nor do I believe in interfering with ordinary derangements. There are only two kinds of diseased action that I would attempt to control—excessive action and extreme debility.

Ans. I cannot see the propriety of making the wrong in disease to consist in *degree* of action. But suppose the fact is so, can you give me a rule by which I can determine with some degree of certainty, when interference is demanded?

For example; we will take twenty cases of pleurisy, including every degree of severity, from the mildest case, in which the pleuritic symptoms are barely perceptible, up to a case that would terminate fatally; at what point shall I conclude that the action is deviating too far from the natural standard to be suffered to proceed further without molestation? Shall I wait until it has mounted as high on the ascending scale as it did in the case of Mr. C., or begin to restrain it before it has reached that point?

Dr. D. Your theory of life is a very good one for a perfect state of the human system, but you must remember that we are now in a very imperfect state.

Ans. I know of but one law for the government of the vital forces in a perfect or imperfect state of the

system. But suppose that what your objection implies were true; that in some imperfect states of the body the vital forces might become rampant, and cut up their shines—leave their posts and collect themselves in groups about the system for sport or mischief —become "concentrated in the deep organs," as some very eminent medical men have supposed was the fact in the cholera, and which constituted its proximate cause—what would become of us, poor mortals, imperfect in our physical constitutions as we now are, unless we could have a skillful Doctor constantly by our side, well "armed and equipped," ready for the suppression of rebellion in its incipient stage or first outbreak?

Dr. D. You are well aware that physicians have already a strong current of popular prejudice to oppose, why do you wish to increase their embarrassments in this respect by throwing in the weight of your influence against them?

Ans. Far be it from me to augment the embarrassments of the profession. They are indeed great, but the populace is not alone chargable with their existence. Physicians themselves have done much towards creating the difficulties of which you complain.

Hear Dr. Strong, President of the Monroe Co. Medical Society, N. Y., in an annual address before that Society. "It has come to be a proverb, that 'physicians will seldom take their own medicine.' When I first commenced the practice of the profession, I was often surprised at the want of confidence which some of the ablest physicians whom I ever knew felt in the power of medicine and their own skill in the cure of disease. On the other hand if we look into the history of the world, we shall find that the more barbarous the nation, the stronger their confidence in the efficacy of the healing art."

Dr. D. I admit most fully that the science of medicine is defective and needs improvement, but why undertake to demolish it?

Ans. For the same reason that you would pull down an old, ill shapen and inconvenient building, that had had a thousand ineffectual attempts at improvement made upon it, and withal was "uncovered at the top and cracked at the foundation," in order that a broad and substantial foundation may be laid, that will admit of a superstructure being erected upon it, that will answer the end of its designation.

Dr. D. Don't you suppose that there were physicians in the days of our Savior? We read of them in the New Testament, and the Savior admitted that the sick had need of them.

Ans. Yes, there were, doubtless, physicians in the time of our Savior; and some too, no doubt, who practiced on the "counteracting" principle; for we read of a woman that "spent all her living on physicians, and was nothing bettered, but rather grew worse." But I find no evidence that any of the cures performed by the "Great Physician" Himself, or through others by virtue of authority derived from Him, were effected by blood letting or the use of poisonous substances.

DR. S. OF O.

Dr. S. When you are called to see a patient with a thorn rankling in the flesh, you leave it for nature to throw off, which she may do in some cases, by a long and tedious process; whereas I take it out at once, and let nature heal the wound; and thus I shorten the work and lessen the danger.

Ans. I believe in removing thorns from the flesh, when we find them in it, and can do it at less expense of vital power, and with less injury to the parts than nature can herself. But, Dr. S., in what proportion of the cases that you are called to manage, do you find the thorn still rankling in the flesh?

Suppose you are called to see a man affected with small pox, measles, typhus fever, bilious fever, or any

of the ordinary complaints that occur in a physician's practice, where is the thorn that you can get hold of and extract?

Dr. S. Well I hold that disease is wrong action, and to be deprecated, and as far as possible prevented.

Ans. I hold that the action of rum, tobacco, opium, calomel, arsenic, rhubarb, and all other poisons on the living human system, is wrong action, and greatly to be deprecated, and as far as possible, by all judicious means, prevented. But when such action has been had, I hold to giving nature an opportunity to do what she can to recover herself from its effects.

DR. B. OF O.

Dr. B. In taking care of my garden, I am careful to remove all noxious weeds from it.

Ans. Very good. Only be careful not to mistake *plants* for noxious weeds, and remove or injure them.

DR. H. OF N.

Dr. H. I believe after all that we must go back to the old doctrine of humoral pathology, to account for the immediate cause of disease. The law of vital action is as fixed and uniform in its operations as the laws that control the action of inanimate matter, so that the *tendency* of the action must always be the same. We must therefore fall back upon the fluids to find the cause of deranged action.

Ans. I should think that physicians would get tired of running back and forth from fluids to living solids, and from living solids to fluids, in search of the proximate cause of disease. But how do you expect to find the *cause* of disturbance in the fluids, when they are the *product* of the living solids? If you were to go into a shoe shop, and find the action of the shoe-

makers very irregular and defective, would you step *back* to the shelf and look for the *cause* of the difficulty among the deformed shoes? Would you not rather go *forward* in search of it; and if you knew that the workmen were governed in all their motions by the perfect, upright law of integrity, would you not be driven to the conclusion that they were doing the best that they could under the circumstances—that they had in some way been injured, enfeebled, and that *want of ability* was the simple reason why they made no more and no better work.

DR. J. OF N.

Dr. J. I agree with you that disease is not a *something*, and I also agree with you so far as this, that in ordinary cases we had better let nature alone, she will get along better without our interference than with—but when disease becomes violent, if there is not something done to check it, it will overcome the powers of life.

Ans. A slight change in the phraseology of your admission and objection will present them in their full force. You admit that "disease is not a *something*. If it is not a *something* it must be a *nothing*. With this small verbal alteration, you would read thus—"I agree with you that disease is nothing, and I also agree with you that in ordinary cases we had better let nature alone, for she will get along better without our interference than with; but when nothing becomes violent, if there is not something done to check it, it will overcome the powers of life."

The belief that disease was a *something*, a "tangible cause through which our medicines might operate," has been so strong that it seems almost an impossibility to get rid of the delusive and mischievous idea. When the good Dr. J. came to look for the "tangible cause," and try to put his finger upon the thing, it was

not to be found, and he was forced to admit that it was not a *something*—and yet the first step he takes after making this admission throws him back into the old rut, and former impressions come over him again with all their force—hence the absurdity which his language presents.

But physicians are fast feeling their way out of the thick, gloomy, bewildering mazes through which their "fathers trod." Dr. T. of H., a highly valued friend, told me that he was following in my wake as fast as he dare do it. He said he was letting nature alone in the cure of most diseases, and was well satisfied that his progress thus far was marked by substantial evidence of improvement. Yet he confessed that there were extreme cases that now and then fell under his care, which he had not courage enough to submit wholly to the "let alone" treatment.

DR. J. OF D.

Dr. J. I have lost my confidence very much in medicine as curative means, but may we not do something to aid the operations of nature?

For example; in biliary concretions, pulmonary tubercles, and various kinds of obstructions, can we not take hold with nature and help her remove them?

Ans. No more than we can take hold with Gabriel, when he is weary and tired, and help him tune and play his harp. We should make very clumsy and awkward work of it, in attempting to help nature use her buckets, by which she removes obstructions—many of them are too slender to be seen with the naked eye.

Dr. J. May we not do something towards correcting the fluids when they are impure, and in this way help nature?

Ans. No. Nature herself cannot purify impurities, and never attempts it. When a particle of matter,

solid or fluid, becomes unfit for use, it is thrown away, and its place supplied with new.

When a bloated, ulcerated, loathsome drunkard puts himself into nature's hands for physical regeneration, she does not undertake to cleanse and save the mass of corruption, but casts it away with all possible dispatch. And, in order to expedite this process, she suspends or slackens for a season other operations, and when she has rid herself of the useless, offensive matter, she calls for raw material—wakes up an appetite for food—and sets the nutritive apparatus at work, and makes a new man.

DR. M. OF H.

Dr. M. May we not sometimes interpose with excitants to advantage, in keeping up the action of important organs for a short period? For instance; suppose the powers of life are running down, flesh and muscular strength failing, and there is no appetite,—may we not in such cases give bark and other tonic bitters, where there is no fever, congestion, or other contra-indicating state of the system, with a view to induce and keep up a little appetite, until the general energies are in some measure restored?

Ans. Such practice would but "counteract the living principle," retard the renovating process, and in extreme cases, increase the danger of extinction of life. There is no such thing on earth as a tonic or strengthening medicine, nor is disease a *running-down* process. Get and hold these truths in your mind, and many of your difficulties will vanish. Let me give you a simple illustration of the conservative feature of the renovating operation called disease.

Your neighbor is deeply involved in debt, and in great danger of bankruptcy, but is determined on making a strong effort to save himself from so mortifying and ruinous a catastrophe. His income con-

tinues, and by a severe course of retrenchment in expenditures, he hopes to be able to meet the demands against him in season to save his credit. Under this restorative operation his wife and daughters are distressed; they want to have new dresses, ride in their carriages, &c., as usual. Now suppose you go and urge this man to slacken his hand, lest the "running down" process should ruin his family. Tell him to continue some of the servants in his employ, run some of his carriages, furnish his wife and daughters with fashionable dresses and pocket money, until his general resources are somewhat repaired.

The case is an extreme one, and calls for correspondingly stringent measures to secure a favorable issue. The cutting down or retrenchment process is crowded on as fast as prudential considerations—such as due regard to the immediate safety, comfort, and feelings of his family—will justify. The servants are discharged; the horses, carriages, and all unnecessary furniture, &c., &c., are disposed of; and, for an indefinite period, a non-intercourse with the merchant, tailor, mantua-maker, milliner, silver smith, jeweler, &c., &c., is rigidly enforced. In fine, all the expenses of the establishment are cut down to a bare subsistence, amounting only to a penny a day for coarse yet wholesome food.

This unnatural or unusual course of procedure is attended with much mortification and distress on the part of the wife and children, but the highest and best interest of all concerned requires that it should be persevered in until the man is saved from bankruptcy and ruin; for it is the best that can be done under the circumstances.

And it is easy to see that in such a case it would be unwise to attempt to "break up" the arrangement, and thwart the purpose of the man. Such efforts could only tend to "counteract the living principle."

In the course of my "let alone" practice, I have many times been astonished to see to what lengths the economy of life would carry the reduction of action process, and yet restore the machine to new and vigorous animation. Many times have I stood by my patients and seen their eyes closed apparently in death, and yet had the satisfaction of witnessing their return to life and health. To what extent it might be expedient and practicable, in some cases, under the most favorable circumstances, for the vital economy to carry this suspension of all vital action within the scope of human ken, and then have it issue in reanimation, it is of course impossible for any man, with his present limited means of knowledge on the subject, to form even a satisfactory conjecture. But I have no doubt that if the theory of unity of vital action prevails, and the practice of leaving the work of renovating the human system in the hands of nature, under such circumstances as further light and experience shall dictate, it will be found to occur occasionally that persons will lie for days and even weeks, to all human appearance within the cold domains of death, and after all be restored to their friends and society on earth. Under the present system of managing disease and interments, it is no unheard of thing for persons to lie apparently dead for some length of time, and resuscitate. The following scrap, cut recently from a weekly periodical, is calculated to excite interest and awaken inquiry on this momentous subject.

"Buried Alive.—We have often thought that some provision should be made by the government against the possibility of living interments. Death and the funeral follow each other so closely that we have no doubt many persons are buried alive. An exchange paper states that since 1833, accidental circumstances have prevented ninety-four persons from being buried.

alive. Of these, thirty-five have recovered spontaneously from their lethargy, at the moment when the funeral ceremonies were about taking place; thirteen were aroused by the stimulus of busy love and grief about them; seven by the fall of the coffin which enclosed them; nine by the pricking of the flesh in sewing up the shroud; five by the sense of suffocation in their coffins; nineteen by accidental delays which occurred in their interment; and six by voluntary delays suggested by doubt as to their death!"

DR. D. OF D.

Dr. D. You make no allowance for the vis inertia. For example, I have a barn that twenty horses will draw, and it would be in vain to hitch on to it any number short of that. Now by exciting the action of the important organs, as that of the digestive and assimilating organs, up to a certain pitch, we obtain an important end; whereas without such action, life might be endangered and lost.

Ans. In dealing with vital operations, we are under no necessity of making allowances for vis inertia. The living barn is so constructed, that one horse can move off with his load, without waiting for others to be hitched on with him. If a spark of fire fall on any part of your flesh, you will not have to wait until nineteen others nestle by the side of it, before you will find that some portion of the barn is moving.

DR. C. OF MASS.

The following objection was offered by Dr. C. of Mass., whose place of residence I did not learn. I saw him in the town of D., with his son Dr. C. I had the pleasure of meeting, one evening, in that place, some half-a-dozen physicians, and gave them some ac-

count of my views of disease; in the course of which I used the mill illustration. Various remarks were made by the physicians present in relation to my theory of disease.

Dr. C. the elder agreed with me in the great importance of saving the vital power, "And," said he, "if the mill forces were tired, and wanted rest, I would not disturb them, but hitch on a crank, and turn the mill with my own forces."

Ans. That would be well if you could do it. But there is no crank which we can hitch on to the human mill, by which the mill can be turned; and if there were, there are no forces that can be used for turning it but the mill forces themselves. I once thought that I could turn the mill with my power, and let the mill forces rest, as in the case of Isaac Treat and some others, (which I had stated.) But it was all a great mistake. I only went into the mill with a scorpion club, and compelled the poor, worn down mill forces to resume their labor.

At a very pleasant interview, subsequent to the meeting, with Dr. H. of D., (who was also present on the above occasion,) he remarked that the answer which I had given to Dr. C., was doubtless correct. and Dr. H., who was then an aged man, and had been many years a respectable practitioner, told me that he was much inclined to believe that my theory of disease was in the main true, "And," said he, "we have been wretchedly deluded on the subject of medicine. I used to think that alcohol, and other subtile, diffusible stimulants, slipped as it were into the very traces of the vital forces, and helped them do their work, or performed it for them, they acted so like a charm, but now I am satisfied that it was all a gross delusion!"

DR. S. OF D.

Dr. S. I am riding over a bridge, and perceive that it is giving away under me; I put spurs to my horse and get off as soon as possible.

Ans. Yes; and if your horse understood himself no better than you do, you would soon be off the bridge. You are on the bridge of life; your horse built it, and knows all about it, and has done the best he could to keep it in order. He would never have suffered it to tremble and creak so as to alarm you, but for the pressure of circumstances. And now if you persevere in jerking your horse smartly by the bit, and spurring him stoutly, you will stand some chance of getting off the bridge.

DR. M. OF F.

Dr. M. My horse is down, and needs a little help in getting up.

Ans. Your horse is no ordinary donkey, liable to get cast in some hollow, and by being helped up is restored to his former state. He can always get up when he has strength to stand after he is up. Of the truth of this position there is abundant proof. In all purely intermittent affections, the horse gets up at the close of every paroxysm, but not having obtained the object for which he lay dowd, he is under the necessity of repeating the process, and of continuing the repetitions until the difficulties are removed, and he recovers strength sufficient to enable him to stand permanently, or until some necessity arises for his lying down. And just at the close of many cases of sickness that terminate fatally, the vital forces make a successful effort to get on to their feet a short time, and then fail, as in the case of Mr. F. mentioned in a former section.

DR. S. OF H., MASS.

Dr. S. I am driving home in my carriage; come to a pinch; my horse is tired, and feels reluctant to make an effort sufficient to carry me over; I put on the whip, and urge him over, and when I get home let him rest.

Ans. Your horse has got home; and he has been waiting patiently a great while to get home, that he might have a suitable and convenient time for *removing* the pinch. The stopping of your horse is not occasioned by a *reluctance*, as you suppose, to make an effort to get *over* a pinch that has some how come in his way for the first time: he has been under the necessity of passing this pinch every hour for a long period, and his object now is to remove it before it shall become impassable or immovable. If he were to wait for *you* to get home, and give him an opportunity to remove the pinch, he might wait till doom's day.

DR. C. OF D.

Dr. C. I am called to see a person with a severe turn of sick head ache. I find nature laboring unsuccessfully to get rid of a full stomach. A full dose of ipecac, or some gentle emetic, shortens the work and thus helps nature.

Ans. A full stomach at the time is not the *cause* of a sick head ache, nor an unfavorable *incident*, when it occurs. The sick head is a renovating process, called for by the previous state of parts, and oftener takes place with an empty stomach than with a full one. The spasmodic affection of the stomach arises from deficiency of controlling power in the motor nerves of the part, and any interference with emetics only serves still further to exhaust that power, and

thus prolong the cure or make it more imperfect than it would otherwise have been. And while the spasmodic affection continues, it is better to have something in the stomach than to have it empty. For this reason, I frequently direct that water gruel or something be taken into the stomach, on such occasions, to keep it steady under the spasmodic action.

DR. P. OF N.

The following objection was not made to me, nor specially against my views of disease, but it lies against a fundamental point in my theory of human life, and on that account I introduce and answer it.

Dr. P. If life be regarded as an *effect*, resulting from the union of the vital properties with the instruments of action, there could be no tangible *cause* through which our medicines might operate.

Ans. Very true; and there is no such tangible cause; and this is the simple reason why physicians have wearied themselves to no purpose in their attempts to establish systems of medicine. They have been following an ignis fatuus in pursuit of a nonentity. They might as well search for the philosopher's stone as for such a *thing* as disease. The idea of a *tangible* object, which the physician should have science enough to understand, and skill enough to remove, filled the whole field of my mental vision, while a student of medicine.

Passing along the road one day, I saw an expert marksman take his rifle and kill a wild duck that had just lighted in the midst of a large company of tame ones. "Thinks I to myself," that is just the kind of skill that I need. I must acquire so much dexterity in the use of my medical rifle, that I can pick out the wild duck of disease from among the tame ones of living organs, without injuring the latter. But alas! after expending much powder and ball, I became

half convinced that it was like shooting among ducks in the dark, quite as likely to wound and kill some of the tame ducks as the wild ones—still continuing, however, to let fly the random shots, though more sparingly and with greater caution, till I became fully satisfied that there was no wild duck for me to kill; that before I was called to the defense or aid of the tame ducks, the wild one was gone, and the tame ducks were only engaged in restoring order in their ranks, that had been broken through the baleful influence of the wild duck. And as I had no heart to fire among the tame ducks, under such circumstances, I threw away my rifle—or rather my *blunder*buss.

DR. S. OF A.

Dr. S. You will never succeed in bringing the community to embrace your views, true or false. Your "no medicine practice" is stamped with cruelty on the very face of it. Why, stand by and see a fellow mortal in distress, and do nothing to relieve him!

Ans. So thought and reasoned the falsely tender hearted mother respecting the practice of teetotalism, when, in commiseration for the suffering condition of her son, who had just entered upon a teetotal abandonment of the use of strong drink, she urged him to take a little wine at his nuptials, on the ground that it would make him feel so much better, and sent him to his bridal bed a drunkard and a ruined man.

Dr. S. But can you stand by and see a man die, and do nothing for him?

Ans. Yes, with great composure. After having done everything in my power to favor the economy of life; given the vital forces the best opportunity of which I was capable, for recovering themselves from the effects of injuries that had been heaped upon them, and then found that failure on their part was

unavoidable; I would let the man lie and die as calmly as possible. Why should I *kill* a man to save him from dying?

When I see doctors load down the side board of their patients with poisonous substances, and withal busy with their lancets, I am reminded of an anecdote of old Dr. Potter of Connecticut, a physician of considerable celebrity in the last century. Dr. Potter, who in advanced years and practice had become satisfied that much bleeding and dosing the sick did more hurt than good, was requested by a young physician to hear a statement of a hard case which had recently been under his care. The young man began by giving a detailed account of the symptoms and treatment from day to day, but he had not proceeded far before the old doctor grew impatient at the recitals of bleedings and heavy doses of medicine, and broke in upon the narration with, "The man died, didn't he?" "Yes." "Well, he did perfectly right," said Dr. Potter, "I would have died if I had been he."

STRANGER—NOT A PHYSICIAN.

Stran. I had a kind of fit, could not speak or help myself in any way, but was conscious most of the time of what was transpiring around me. A Doctor was called in and bled me. At first he could get no blood, though he opened a number of veins, both in my arms and feet. Finally the blood flowed; and as that began to flow, I revived. Do you think I should ever have come to, if the Doctor had not bled me?

Ans. The bleeding was an *effect* not the *cause* of your revival. The Doctor could draw no blood from you, no more than he could from a dead man, until the vital forces were commissioned to revive the circulation.

DR. D. OF E.

Dr. D. You say that there is no danger that diseased action, under the circumstances in which it occurs, will ever go too far. Suppose it ends in death?

Ans. In that event, it does not go too far.

The captain, whose ship has been driven by counter currents and opposing winds from her natural course, and is finally dashed upon the rocks, did what he could to save her. His efforts, therefore, (diseased action,) although not successful, as they were aimed to be, did not go too far. Although the ship was lost, she was kept from the rocks a little longer than if no effort to save her had been made.

The man who, by profligate living or unfortunate circumstances, is in danger of bankruptcy, by well directed efforts, (diseased action,) may postpone that event, though he may not be able finally to prevent it.

DR S. OF C.

Dr. S. A successful practice of fifteen years has convinced me that medicine does good.

Ans. Ten years of successful practice with medicine, and twenty years of *more* successful practice without it, have convinced me that it does more hurt than good.

DR. P. OF T.

Dr. P. You hold that the stomach and all of the instruments of motion in the human system act by an intrinsic impulse or law of necessity—that when they have work to do, and are under circumstances to do it, (that is, have the requisite power and means to do it with, and nothing to prevent their natural action,) they move on in the performance of their work by an

intuitive or instinctive perception of duty, and are not compelled by extrinsic stimulants or impulses, (except the motions that are prompted by the will, or voluntary motions.) Of course you hold that the heart and arteries are not excited to action by the *stimulus* of the blood, either of quality or quantity. Why is it, then, that the heart stops beating when suddenly deprived of blood?

Ans. For the same reason that a joiner stops shoving his plane when the board is taken from him. It would be a foolish heart that would beat for nothing.

DR. B. OF N.

Dr. B. How does your vis vitæ know just when to move and where to move to, to meet a present necessity?

Auth. How does water know how to run down hill? How do the planets know how to keep in their orbits? And, especially, how do crystaline substances when dissolved know how to arrange themselves again in the same form in which they were before dissolution, when placed under circumstances in which they can do it?

Dr. B. They were made to do so.

Auth. My vis vitæ was made to do just as it does do.

DR. B. OF A.

(Not exactly an objection, though it might be intended for a sidewise one.)

Dr. B. You appear to feel pretty confident that the old medical temple, "uncovered at the top and cracked at the foundation," will fall before a great while; do you think it will bury the Doctors in its ruins?

Ans. No; its fall will not injure the Doctors; but it will crush empiricism, and send quacks to their "own place." Physicians will clear away the rubbish and rear a new edifice on positive entity—unity of vital action—that will commend itself to the good sense of community, and which will afford a safe retreat and comfortable home to the honest practitioner.

Physicians may be very profitably employed in community without their saddle bags or lancets. By substituting a good knowledge of Materia Alimentaria, in lieu of Materia Medica—which the prevalence of more correct views of disease will afford them leisure to do—they may become very useful in attending upon the sick, and in teaching *prophytactic science*, which would soon do away with much of the necessity of exercising the *therapeutic art.*

And when "the sovereign people" get fairly waked up to this subject, they will greatly prefer to feed their Doctors well for keeping them in health, than pay them for attendance in sickness. Physicians will come to be supported as clergymen are—or ought to be—by competent salaries. It is wretched *economy*, to speak of nothing else, for any community to make it for the interest and almost for the life of selfish men, (and all men are selfish,) to draw their blood, and stuff them with poison.

I hope to live long enough yet, though I am now well over on the down-hill side of life, to see my profession (not of medicine, but of health,) established on a firm, enduring basis, beyond the reach and influence of vile quackery. It has long enough been a prey to internal divisions and external contempt.

The following scrap, cut from an English paper, but too truly pictures the awkward predicament in which the practitioner of medicine now stands before a large portion of the community.

"I must own I never see a fashionable physician mysteriously consulting the pulse of his patient, or,

with a silver spoon on his tongue, importantly peering down his throat, but I feel a desire to exclaim—"Why not tell the poor gentleman at once, 'Sir, you have eaten too much, you have drunk too much, and you have not taken exercise enough.'" That these are the real causes of every one's illness, there can be no greater proof than that those savage nations who live actively and temperately, have only one disorder —death!

The human frame was not created imperfect—it is we ourselves who have made it so—there exists no donkey in creation so over laden as our stomachs; and it is because they groan under the weights so cruelly imposed upon them, that we are seen driving them before us to one little brunnen.

This reminds us of Voltaire's definition—'A physician is an unfortunate gentleman, who is every day requested to perform a miracle—namely, to reconcile health with intemperance.'"

SECTION IX.

GENERAL DIRECTIONS FOR THE MANAGEMENT OF DISEASE, WITH SPECIFICATIONS AND EXCEPTIONS.

In treating disease, every physician will be governed by his view of the nature of the difficulty to be remedied.

"In what respects," said Dr. B. of B., "do you differ from me and many of the physicians of the present day, in your treatment of disease? You give medicine in some cases, and we give active medicine now but seldom. I make dependence on medicine for the cure of disease in but a small proportion of the cases that come under my care."

Reply, "We differ in two fundamental particulars.

First, The general principles on which we form our indications of treatment are directly opposite to each other. You hold that disease is wrong action; I maintain that it is right action.

Second, To be consistent, the general rule for practice based upon your general principle must be, break up diseased action. On my general principle, let diseased action alone."

If I held to the prevalent views of disease as I once did, I would adhere strictly in practice to the rules taught me by, and under the direction of my beloved instructor, and give disease no quarter whenever I met with it under circumstances in which a treatment could be borne that would arrest and turn back, or break up the wrong action, without doing too much violence to living organs.

PRELIMINARY MEASURES.

Persons who feel disposed or constrained to renounce the common views of disease, and embrace

those herein inculcated, and feel a desire to practice in accordance with them, should first "sit down and count the cost." For until they are well indoctrinated in the principles of healthy and impaired healthy action, and have been led on their way through some of the milder forms of disease, or have those who possess the requisite knowledge and experience to manage their cases for them, they will find it exceedingly difficult to hold out through severe or protracted illness, with their anti-medical treatment.

Under great suffering ,or threatened danger, their confidence in their new views and practice would be likely to flag, if there were no extrinsic circumstances calculated to disturb it. But they would meet with an overwhelming amount of disturbing influence from without. "Kindred and friends," with the whole neighborhood and village populace would be upon them, more alarmed and concerned for them than if they were compassing their own destruction by violent means;—and would give them no rest until war was proclaimed and waging against their disease.

A gentleman in the town of S., Ct., who was, as I was informed, taken down quite severely with pleurisy, determined on risking himself through the disease without medicine, and held out to the fourth or fifth day, when Dr. G. was called in to manage the remainder of the case. Dr. G. said that case would be worth fifty dollars to him,—and he doubtless made that amount of capital out of it, by holding it in terrorum over the heads of his revolting subjects.

"What shall we do under these circumstances?" is a question that has been put to me many times, by those who are anxious to be rid of "drugs and medicine" for themselves and families; and seldom have I had a question propounded to me to which I found it so difficult to return an answer. It is of the first importance that the mind should be at rest, while the body is disturbed by a renovating process. In order

therefore to aid those who are inquiring on the subject, and who are at a loss to know what they shall do when they are sick, I will venture to proffer the following advice.

First, Give the whole subject a thorough examination, with all the helps at your command, while you and your families are in health, and decide which theory of disease you will adopt, the right or wrong action theory.

It is not to be expected that many even of those who have lost their confidence in old views of disease, should settle down unwaveringly at once upon the new views herein presented. But every one had better keep a balance struck in his own mind, and feel decided what course he will take in the event of sickness; and when disease comes, pursue that course undeviatingly and without concern through *that* disease. Sickness is not the time for examining the merits of clashing theories, and it is unfortunate for an individual to be harassed with doubts at such a time;—calling in a physician to day and taking his medicine, and discarding him and his medicine to morrow, or having his mind continually disturbed with an apprehension that the medicine is working mischief:—and it is exceedingly perplexing and annoying to physicians that are in attendance on such occasions.

It would be well for those in any community who feel a deep concern in this subject, (and it is second to but one other in its bearing on human weal) to form themselves into an association for medical reform, and go into a thorough discussion and investigation of the whole matter;—and in doing this, they should engage with them in this work, as far as possible, the regular practitioners of medicine in their vicinity. At this late day it is not presumption or arrogance to say that the whole medical faculty have been, and, to a great extent, are yet, "under a cloud,"—and though force of habit and pride of opinion will hold them back with

chain cable power, they will yet break loose and find their way out into open day light, and plant themselves upon the rock of truth,—and a generous confiding public will commit to them the keeping of their physical being, and take good care to secure them against being sufferers by their change of position. But in the mean time multitudes in the concern of their bodies, will be "like sheep without a shepherd," and in great perplexity to know what they and their families shall do when sickness occurs.

In many instances a compromise might be made with physicians for treatment on the "let alone" plan, for great numbers of these about the country have lost so much of their confidence in the common theories and practice of medicine, that it would be no breach of moral responsibility in them to lay aside their weapons of war in the treatment of disease. And in most of the large places of our land, good homœopathic doctors are to be found,—these may be employed without scruple, and if they want to give homœopathic medicine, let them do so, it will do no hurt. Yet after making these allowances, there will still remain a large class of individuals scattered abroad over the land unprovided for, that will have no professional staff on which they can or ought to lean for support, for the present at least, in most of the ills which "flesh is heir to."* To such I would say,

Second, Clear your premises of every species of what may be called domestic medicine, such as laudanum, camphor, elixirs, volatile salts and liquids, picra, rhubarb, senna, magnesia, &c., &c.

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* Families will be under the necessity of depending on professional men for assistance in some cases of a surgical nature. On this account therefore, as well as for the reasons suggested above, every family had better have at least one regular bred practitioner, in whose ability and integrity they have confidence, retained as a family physician, whose services they can command at pleasure, and with whom they can have a free interchange of opinion on the general topics of disease.

At the commencement of house-keeping, and for some years afterwards I was careful to keep a supply of a number of these noxious substances in my house, ready for any emergency night or day, in addition to a stock of them in an apothecary shop of some considerable magnitude, which I had opened, (as I now view it) for general poisoning operations. But I should now as soon think of keeping loaded rifles, pistols, drawn swords, dirks, and bowie knives in my house, for the benefit of the health of my family, as I should such murderous instruments.

Third, *Strive* to get, and habitually maintain a correct idea of disease. So deeply lodged in the human mind is the impression that disease is an enemy, "wrong action, and to be deprecated, and as far as possible prevented," that it is no easy matter to procure its dislodgment and total and final ejection. This notion troubled me much after I was as well satisfied of its fallaciousness as I was of my own existence.

Coming to the bedside of a patient, in whom the action was deviating widely from the natural state, as in epileptic fits, violent inflammation, strong spasm and the like, my combativeness would be excited, and I would feel for a moment like laying hold of some weapon and making battle.

Let me say then to those who want to obtain firm standing in relation to their views, feelings and treatment of disease on the right action theory, labor diligently and perseveringly on this part of the subject. Give the introduction of disease, in whatever shape or size it may appear, or through whatever avenue it may come, a kind and hearty welcome. Accustom yourselves in all your little pains and aches, and also in your grave and more distressing affections, to regard the movement concerned in them in a kind and friendly aspect;—designed for and tending to the removal of a difficulty of whose existence you was before unaware, and which, if suffered to remain

and accumulate, might prove the destruction of the house you live in;—and that instead of *its* needing *to be cured*, it is *itself* a *curative* operation. And that what should be considered and called *disease*, lies back of the developments, symptoms or movements that are made for the express purpose of removing the real disease or difficulty.

Never suffer yourselves to be anxious or concerned lest disease, (falsely so called) or the renovating process should rise too high in its action, or fall too low; should go too far in different directions, or continue too long. The effort that is being made to restore parts to soundness and vigor will be wisely adapted to the exigency of the case.

In order to impress this important truth more deeply on the mind, I will give some cases and offer remarks illustrative of the four kinds of action or restorative movements above referred to, namely,

I. *High inflammatory action.*

II. *Low, depressed action.*

III. *An extension of diseased action, successively to different parts of the body.*

IV. *A long continuance of disease in the same parts.*

I. *Excessive, or high inflammatory action.*

Under this head I will state a case of acute inflammatory pleurisy, from my own personal experience.

In January, 1840, the eighth month of my residence in a western state, my general health began to decline My appetite and strength gradually failed me; exercise became irksome, attended with great lassitude and a sense of soreness over the whole system, which at length made my couch and a recumbent posture desirable. While sitting up one evening, in preparation for the night's repose, I had a chill and heavy rigor pass over me, shaking my whole frame, and making my teeth chatter, which continued two or three minutes. As the chill subsided, a pain commenced in the top of my left shoulder, soon became agonizing, and,

after some ten or twelve minutes, gradually descended by the shoulder blade until it became fixed and exceedingly distressing in my left side, and whence, like a dense cloud, it spread through all the middle region of the chest, and in a short period I was in a confirmed, acute inflammatory pleurisy. For twelve hours the breathing was at best laborious and painful, confining me to nearly an erect position in bed; but the distress occasioned by efforts at coughing was indescribable.

The confidence of my wife in the "let alone" treatment, which had been strengthening for years, and which had carried her unflinchingly through a number of serious indispositions, on this occasion faltered; and she begged of me to let her send for a physician to bleed me or do something to give at least temporary relief; "for," said she, "you *cannot* live so." In my own mind there was not the least vestige of misgiving respecting the course pursued.

In view of the constitutional defect in the pulmonary department of my system, and the nature and severity of the symptoms, it appeared to me very doubtful whether the powers of life would hold out, and be able to accomplish what they had undertaken, and put me again upon my feet. But I felt perfectly satisfied that whatever could be done to good purpose would be, and done too by "due course of law." The primary and radical difficulty did not consist in an excess of blood, congestion, obstruction, depravity of the fluids, wrong action, or in any thing within the purview of my prehension and expulsion, or expurgation or correction; but in a deep seated, latent injury of some of the thoracic viscera, and the general tissue of capillary vessels connected with those viscera—an injury which had been long accummulating from default of power to remedy, without breaking in upon the regular, every day train of action, and the time had now come when *such* a step was imperiously de-

manded. Every necessary possible precaution to guard the citadel of life was taken, and all necessary preparation made for the great renovating operation.*

Such were my views of the case. My mind, therefore was perfectly at ease in trusting nature's work in nature's hands. There was no danger in the symptoms, let them run as high as they would. They constituted no part of the real difficulty, but grew out of it. The general movement which gave them existence was aiming directly at the removal of the difficulty. If there was danger of effusion, suppuration, sphacelation or final exhaustion, the steps taken were tending to the prevention of such termination. Instead, therefore, of being troubled with the idea that I could not live *with* such symptoms, my conviction was very strong that I could live better *with* them than *without* them.†

In the morning, ten or twelve hours from the time

* For a day or two previous to the flagging of my muscular powers, I enjoyed unusual health and vigor. A general and free distribution of the vis vitæ or life giving principle was now made, by way of summoning all hands to a participation in the grand recuperative work that was about to be entered upon—and then for a few days the law of limitation was moderately enforced, and the law of accommodation put in operation, preparatory to that work.

The fact that the economy of life was careful to prepare the system for curative operations and movements of magnitude and importance, had no small share in the mass of influences and evidence that went to confirm me in my present views of disease.

Bruises and old ulcers, and various kinds of chronic and other affections will be temporarily healed for the introduction and prosecution of an important curative work—such as typhus fever, and other general and considerable affection. Even fatal consumptions are sometimes suspended during a portion of the important process of gestation or child bearing, inspiring the patient and friends with an illusory hope of cure.

† We have all grades of pleuritic diseases, from the mildest—in which the symptoms are scarcely discernable—to those that terminate in death. Will those physicians, therefore, who hold to doing nothing in the milder forms of disease, tell us in what cases the symptoms are sufficiently threatening to indicate the necessity of an interposition on the part of art; and why such necessity exists at that juncture, and not in the milder forms of disease?

of the cold chill, there was some mitigation of suffering, which continued till afternoon, when there was a slight exacerbation of symptoms; but the heaviest part of the great work was accomplished within the first twenty four hours. From that time there was a gradual declension of febrile and painful symptoms, in most perfect order, in wavy undulations or by gentle paroxysms, till the fifth day, when debility and expectoration constituted the bulk of disease.

Full bleeding at the commencement of the disease, followed by the other "break up" means usually employed in such affections would have given me immediate relief, and by continuing to ply active means as the work was urged on, (for there would have been no stopping of it, short of stopping the action of the heart,) the strongest, most distressing and critical part of the disease might have been pushed forward to the fifth day; and I might even then possibly have recovered. But granting that my life would have been spared, I suffered much less, on the whole, under the "let alone" treatment than I should have done under a perturbating one, besides having the curative process conducted with more regularity, made shorter, and done up more effectually.

For the first twenty-four hours, I took nothing into my mouth but water, of which I drank as often and as long as it would taste good. During the next four days, I took a small quantity of Graham bread and crackers in the form of toast,* as I felt inclined. Afterwards, as my appetite increased, my daily rations were augmented, until I was restored to my usual state of health, and more than restored—for I never enjoyed so much freedom from stricture, pains and other difficulties about the chest, for seven years together, before that turn of pleurisy, as I have done for

* By toast I mean bread slowly, though thoroughly, toasted and softened with hot water.

that length of time since. But there is one important fact that should be noticed here, which has doubtless contributed much towards securing for me this favorable condition—namely, that I had but a little more than a year previously to the pleuritic process abandoned the use of an inflammatory or meat diet, of which I have tasted none since.

II. *Extreme debility.*

Disease—Cholera morbus. *Subject*—Capt. C. E. of H. This case occurred not long after my change of views respecting disease had been made public.

I was called the latter part of the night to see Capt. E., and learned that after a number of hours of distressing affection of the stomach and bowels, in which the action of the former was frequently inverted, and the latter by spells painfully increased, though with no apparent or apprehended danger, there was a sudden change in the aspect of the disease, characterized by great prostration of strength, coldness of the extremities and tendency to faint. It was in this latter state that I found my patient.

On my first entering the room, Capt. E. said, "Doctor, you must do something for me—I cannot live unless you do." Knowing very well that it was not then a suitable time to reason with the man on the propriety of letting nature alone in the administration of her own affairs, I replied, "O yes, Captain, you shall have something done for you." And soon a table with ample trappings was paraded, *secundum artem*, in full view of the sick man, and all the means and instructions furnished that were requisite for keeping a number of attendants in full employ.

It was not long before a favorable change was manifest. Warmth began to be diffused over the whole system, and the general tone of the system gradually increased. After returning home and making out my complement of sleep, I visited my patient again and found him steadily and firmly convalescent. "Well,

now, Doctor," said the Captain, "you see that medicine does good sometimes. I should not have been alive at this time without it."

The placebo treatment made a "resting place for the mind,"* but interposed no barrier or check to the natural operations of the vital economy. The appearances for a while were truly alarming. Yet my confidence in the wisdom and skill with which the movements were conducted was unshaken. The derangements in the condition and action of parts were owing to a reduction of power in those parts, and that reduction was occasioned by a louder call or stronger claim thrown in from some other quarter than was made by the suffering parts, and there was not power enough in store to meet all the demands of the system at the same time. It was to meet and obviate danger that the reduction of power and the consequent debility were suffered to take place. There was no danger, therefore, that the debility would extend too far—become too extreme—for it could only be commensurate with the danger or difficulty that gave rise to it. If the difficulty had been insurmountable, after the combined energies that had been brought to bear upon it had been expended, all action would have ceased.

III. *Digressive and Excursive Diseased Action.*

Before giving a case for illustration under this head, I will offer a few prefatory remarks.

Physicians have long known that two diseases, specifically different from each other, seldom prevail side by side—or pursue their course at the same time—in the same individual; but that when there are two or more diseases ready to run their course at the same time, they are orderly enough to wait one for the other.

* A hypochondriacal man, on whom I was once attending, urged me to put a large blister plaster on his breast. "Put it on," said Dr. Ives, who was in consultation with me in the case, "it will make a resting place for the mind."

For instance, J. H. had been affected by the contagions of scarlet fever and measles. The measles stood back until the scarlet fever had taken its turn, or had progressed far enough to pass its crisis, and then entered upon and pursued their course, whereas they would have appeared in the ordinary course of things, four weeks earlier, but for giving precedence to the scarlet fever.

Now this single fact speaks volumes in favor of the orderly, law-abiding principle, by which the economy of life is governed in her restorative operations, or, as they are most marvelously miscalled, diseased action. Nor is it in the train of action manifested by diseases of different kinds only, that this order is observable. Nature seems well to understand and appreciate the wisdom of the maxim, "Do but one thing at a time." She is cautious of having "too many irons in the fire" at once. And especially when she has in progress an important general reparatory work, she will suspend the reparation of a local injury, until the larger work is done up or well advanced. The following instance is an example in point.

D. P. J., a young man, while laboring under the premonitory symptoms of contagious typhus fever, a disease that was then prevailing in his father's family and neighborhood, fell from an out door to the second story of a saw-mill, upon a hommoc of ice, receiving the weight of the blow on the left side of the head. He was immediately confined to his bed with typhus fever, but the pain, soreness, and all appearance of injury soon disappeared, and did not return again till the close of the seventh week of the fever, when, after a crisis had been formed, and there had been a gradual and steady convalescence for a week, inflammatory action recommenced about the head, that terminated in a large abscess of the part on which the blow had been given, which proved an overmatch for the worn down vital forces.

It must have required an extra appropriation of power to put and keep the action of the injured parts on a par with that of the general tissues; yet this was so essential to the maintenance of the general operations as to justify the expenditure. This course is not always pursued when general and local reparations are pending at the same time, for various reasons. In some instances, the local cure would not seriously interfere with the general one, and therefore both of them might be in progress at once; and in some cases, there might not be power enough within the province of the local injury, that could be brought to bear upon the wounded vessels, to prevent their falling into derangement, before the general cure that was in progress could be concluded. I must not, however, pursue this train of thought further here, but proceed to detail the promised case, to show that it is safe to allow diseased action, (alias, curative work,) to proceed successively from one part of the system to another, until all defects are removed and deficiencies supplied, without molestation. The case occurred more than twenty years ago.

C. A., a young man of rather intemperate habits, was laid upon his bed with lung fever. For the first two weeks, the lungs and their appendices were the seat of local disease, and during this portion of the recuperative process life was nearly despaired of; but there was a little lighting up of general symptoms, and considerable improvement in the lung affection, when the bulk of disease was turned upon the liver and bowels, and for a week there was colliquative bilious diarrhea, accompanied with great prostration of strength, and dark forebodings. Again the storm seemed to be passing over, and a faint bow of promise was hung out, when suddenly the cuticular exhalents of the surface of the body was found to be undergoing a thorough overhauling, and we had profuse "night sweats," with extreme debility, shrouding

the prospects in deeper gloom than had settled upon them at either of the other corners of the disease.

At this period, the young man's sister, Mrs. B., from a neighboring city, called to see him, and hearing something said about his sweating nights, she inquired whether he sweat at any other time, and being answered in the negative, she turned to me, and with a look of much concern, said, "Why, Doctor, they must be night sweats, must n't they?" "Yes," I replied, "I can see no way of avoiding that conclusion; if he sweats at night and at no other time, they must be night sweats."

"Well, what are you going to do with them?"

"I am going to let them sweat it out."

At length the young man recovered, and walked forth in all the vigor of youth, having had a great, important, and needful work wrought in his physical system, and done, too, in the best possible manner;—and although the work was protracted, yet it was urged on as fast, and consummated as soon as a due regard to the safety and permanent good of the system would warrant. Nor was the renovating process carried too far; no part was subjected to this process that did not call for or need it. There is no more danger that a sound organ, well stocked with vital funds, will fall into impaired or diseased action, than there is that the conductors of a bank, who are governed by the strictest principles of integrity, will refuse to redeem their paper when their vaults are overflowing with specie.

IV. *Long Continued Diseased Action in the Same Tissues or Parts of the System.*

Under this head I will give a case of inveterate eruption. The subject of it was O. S., of D., then a young lad. A more troublesome or distressing affection is seldom witnessed, than was the one to which I am now alluding. Through many long, tedious months, the poor little fellow was agonized with

an itching, a burning and painful eruption, almost literally covering the whole body "from head to feet," in many parts formed into compact patches of scalding sores.

Numberless were the anxious and heart-reading hours which the widowed mother devoted to her afflicted boy, both by day and by night, and yet the best and most consoling thing that I could say to her respecting the disease, was, "let it alone." This counsel was a severe test to faith and patience, yet, on the whole, it was duly honored. In the early part of the disease, some external applications were tried, but found ineffectual either for cure or palliation, and nature was left to pursue her own course, under a strict and well conducted regimen. And the winding up of the curative operation was truly astonishing. It was only a few days after a favorable change was apparent in the eruption, before the whole surface of the body exhibited a sound, smooth, and healty appearance, and the general health was firmly established, and has, I believe, continued good to the present time, when, instead of the tender boy, we have the strong, robust young man.

Had some eruptive drops been used near and at the closing up of this affection, they might have been immortalized.

One circumstance connected with this case may be worth stating on account of its bearing upon diet. An eminent physician, friend of the family, being present on one occasion, was consulted in the premises. His advice in the main coincided with mine. He thought the constitution and health of the boy would be better in after life, if little or nothing was done to disturb the internal harmony of the vital economy; but said it might be well to keep the bowels rather loose with some mild laxative. "What shall I use for that purpose?" inquired Mrs. S. "Does the boy like molasses?" asked the Doctor. "Yes." "Well, let

him take of that in sufficient quantity to keep the bowels a little loose." The experiment was tried, and succeeded to the admiration of the mother. When the facts were stated to me, I told Mrs. S. that the molasses proved laxative from want of power to digest it, but that if the molasses was continued, the law of accommodation would soon qualify the parts concerned to digest it, and then the boy might live on molasses, and it would have no more of a laxative effect on him than bread would; and we soon had a practical verification of that opinion.

These detached cases are offered for the purpose of showing that severe, discursive, and protracted diseases are conservative and renovating in their nature and tendency, as well as mild, direct, and short ones; and that therefore all fear of their proceeding too far, or continuing too long, may be dispensed with.

Other facts—gathered both from the past and the future—will be relied upon to prove that the letting-alone, or "expectant" (as it has been called) plan of treating disease, will shorten the work, and at the same time, secure a more thorough operation—that is, leave the system in a better condition, and save more lives, than the "perturbating" plan.

If disease is, in reality, an exhausting, or a devouring process, to be regarded in something of the light of fire on a house, which if not put out will burn its way into ("seize and fasten upon the vitals,") and through the building, until the whole is destroyed, how does it happen that in cases like that of O. S., where the devouring element rages with unmolested and intense fury for months, and more especially still, in cases like that of C. A., where the fire has passed through every department of the building, and seems to have consumed every combustible material about it, the house, after all, emerges from the flames, like a young rising phenix, with renovated

soundness and beauty? And further still, if such is the nature of disease, how astounding the fact that the vast amount of intellect that has been applied to the subject, for the lapse of ages upon ages, with most devoted and untiring assiduity, has not yet been able to devise some sure and safe method of putting out the fire!—at least, that some wise heads, "more lucky than the rest," should not have fallen upon some method of treating disease, that should appear, to the most superficial observer, to be attended with results that would at once give it a decided preference over treatment by men, who, to say the least, have very little claim to scientific attainments in the profession.*

It is well known that physicians of every description, at times have patients hang on their hands a great while, which neither their own skill, nor the combined skill of counsel can cure; and not unfrequently, such cases, when given up to nature, recover rapidly. The two following, among many thousands that might be adduced, are instances.

First Case.—I was called into a neighboring town, some distance from my place of residence, to see a maiden lady, not an *old* maid, though I believe she had "crossed the line," or was in the neighborhood of it, who had been long afflicted with a complication of physical derangements. Her appearance was a good personification of wretchedness. She gave me a long account of herself; the amount of which was that she had been sick a long while, had suffered much, taken a great deal of medicine of many physicians, and was getting tired of it. She had heard

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*During the pending of a petition, in the State of Massachusetts, by the Thomsonians, to be raised to an equality of legal privileges with the regular profession, a Senator, in offering reasons why the prayer of the petition should be granted, declared that he had observed, extensively and carefully, the practice of licensed physicians of the first order, and also that of the Thomsonians, and could discover no appreciable difference in the results.

of some great cures that had been performed under my direction, with little medicine, and wished me to make trial of my skill in her case. (This occurred while I was sailing under false colors.) After getting a history of her case, and inquiring into her mode of living, I concluded that it would be expedient to cut her off from *grocery* "stuff," as well as from "*apothecary* stuff;" and in order to test her feelings and strength of purpose on the subject of self-denial, and also the better to secure an observance of my prescription, in the event of my making out one for her, I observed to her that there was no doubt but that she might soon get her health, provided she would pursue a proper course; but remarked at the same time, that it would cost her so much self-denial, the probability was that she would not endure it, and perhaps on the whole she had better continue on under the old order of things; and after giving some general advice, I rose abruptly, took my hat, bade her "good day," and made for the door. "Stop, stop," said she, "I beg of you, and prescribe for me. I will follow your directions, cost what it may." I sat down and wrote directions, cutting her off from tea, coffee, spices, &c.; in short, putting her on plain, simple nutriment and cold water, with the exception of a small allowance of animal food once a day. (I was then using this article myself.) I promised to make up and send her a box of pills, of which she might take one every evening till she got her health, but gave her a strict charge to stop the use of the pills the moment that she departed from the directions respecting diet. I made up a box of little red pills, about the size of pigeon shot, as handsome and as potent as wheat bread and cochineal would make them, and sent out to her. I neither saw nor heard more of the lady for about six months, when, being called to see a sick man about two miles from her

usual place of residence, I saw a young woman at a spinning wheel, with a cheerful, healthy-looking countenance, and who gave me an occasional good-natured glance of the eye, as if she would be glad to say something to me.

As I was about closing my visit at the house, she came toward me, and said, "I believe you dont remember me."

"No," I replied, "I have no recollection of having seen you before."

"Don't you remember being called to Mr. G——'s, to see a distressed object?"

"Yes; but you are not that individual."

"I am. Your pills cured me right up, and I have enjoyed excellent health since."

Second Case.—The late Dr. Smith, Professor in the Med. Inst., Yale College, was called in consultation with Dr. B., to see a woman who had long been sick, was reduced to the last extremity, and who was at the time under a heavy press of medicine.

On entering the counsel chamber, after looking at the woman, "What shall we do?" says Dr. B., "there is no time to be lost."

"I will tell you what I would do, replied Dr. Smith. "I would take away the medicine, and try the woman awhile without any."

"She wouldn't live an hour," rejoined the astonished Dr. B.

"I will warrant her twenty-four hours," says Dr. Smith.

"Well," says Dr. B., "on your responsibility I will withdraw the medicine, but I tell you the woman will go down."

The medicine was withheld, and in a short time the woman began to brighten up, and thenceforward recovered without further difficulty.

GENERAL DIRECTIONS FOR THE MANAGEMENT OF DISEASE.

"Strengthen the things that remain, *that are ready to die.*"

"Although art can only serve in the humble capacity of handmaid to nature in the sustenance of life and promotion of health, yet even in this capacity it may do much to "help nature," and thus very considerably abbreviate human suffering. There are two ways of stopping the cries of a hungry child—one by giving it bread, the other by putting on the rod. "My voice is" not "for war." We cannot, it is true, supply the pabulum or principle of life, but we can do that which will almost amount to the same thing; we can so favor the operations of the vital economy, as to make it comparatively easy for her to do her work, when reduced in her resources to a complaining point. To this end two things need primary and special attention.

I. *The Closing of Waste Gates.*

II. *The removal of causes of disturbance, where any are to be found, and can be advantageously removed by art.*

I will consider these parts of a handmaid's duty, in the order in which they are stated.

I. *The closing of waste gates.*

This is one of the most effectual ways of helping nature within our reach.

By closing waste gates is meant, the cutting off, or saving the vital economy from, unnecessary expenditure of power. The extent to which the closing up of sources of expenditure of power should be carried, must be determined by the nature of each individual case. In every instance, however, when the wheels of of life move more tardily than usual, or occasion more or less of uneasiness in their motions, caution should be exercised; for derangement of action, or pain, is nature's "strange work";—she never suffers a single

fibre of the body to deviate in its action from the natural state, or be subjected to pain, so long as she can prevent it consistently with the general good of the system. When therefore there is much or long complaining by important parts, it may be regarded as an indication that vitality is low, and heed should be taken to the expenditure of power. But where from premonitory symptoms, exposedness to contagion or otherwise there is good reason to believe that a deep and thorough work is about to be performed on the system, the individual should lose no time in making the necessary preparation for it by a proper disposition and care of body and mind. While appetite and strength hold out, he may, with due caution, continue to eat and exercise; and as his appetite and strength fail, he should yield to them until he is laid quietly upon his bed. If he has been in the habit of cold bathing, (and every one while in health should be) let that be laid aside just as he leaves off exercise, gradually if the disease comes on gradually, and suddenly if the disease comes on suddenly. In short, he should see that nothing is suffered to interfere with a free and full operation of the law of life;—that just such appropriation and distribution may be made of the vital forces as the particular circumstances of the case may call for.

If this course carries a man into a pleurisy, let him have a pleurisy: if it brings on typhus fever, bilious fever, or yellow fever, let him have that fever; if it plunges him into a deep lung affection, threatening confirmed consumption, let it have free course and push him as far in that direction as it will, for safety lies only in that direction; if it throws him into a fit, let him remain in the fit, until he is released from it "by law." Remember the words of Napoleon. "We are a machine made to live. We are organized for that purpose; such is our nature. *Do not counteract the living principle.* Let it alone; leave it to the lib-

erty of defending itself,—it will do better than your drugs." Keep still. Rest, *rest*, REST is the grand panacea. To this end care should be taken to have the *mind* composed and peaceful.

For it is well known that the connection of the mind with the brain—the seat and centre of vital influences—is such, that it can exert an overpowering influence over the motions of the physical machinery unless it is kept under due restraint. The only proper place and condition for the mind to be in, is to lie submissively and quietly in the bosom of its Father, reconciled through the blood of the Lamb,—committing itself and all its interests to Him, "as unto a faithful Creator,—in well doing."

Man is so constituted, such is his relation to his Maker, that "God out of Christ," will, and must, and ought to be to him, "a consuming fire." "There is no peace saith my God to the wicked." But' "Thou wilt keep him in perfect peace whose mind is stayed on thee."

I would here particularly caution those who are satisfied that their physical systems are in a disabled state, and are about to be subjected to a serious renovating operation, or have it in progress, (and how extensive it may need to be, they can have no means of knowing, accurately, until the process has been gone through with) against exposures to new sources of damage, till they are restored to a healthy condition.

I have given one case, that of D. P. J., when an injury from a fall, superadded to an injury previously inflicted by typhus contagion, proved fatal; while either injury, taken separately, with the stock of vital energy on hand in that case, might have been recovered from. I will state another case in which injuries inflicted by two sets of causes were irreparable by the vital forces then in store.

Little Charles Carrier was affected with what physicians commonly call cholera infantum, with which he

hung for four or five days on the outer verge of life, then began to mend, and for two or three days gave flattering encouragement of final restoration; when to our great alarm, it became manifest that a difficulty produced by the action of hooping cough contagion upon other tissues of his little system, was blocking the wheels of life. With this new difficulty, the previously almost exhausted vital forces engaged and struggled for two days, and then yielded the conflict.

When the little fellow was taken down with the bowel affection, it was known that he had been exposed to hooping cough, and in the early stages of the cholera, he had a few spells of coughing, but from the absence of this symptom in the latter stages of the cholera, and the steady convalescence for two or three days, we were led to hope that the hooping cough was not, after all, behind the curtain. Either of the difficulties, taken alone, in the entire absence of the other, would have doubtless been removed.

Many of the fatal cases that occur in communities are rendered so by additional burdens imposed upon the vital economy, which a little prudent forecast might prevent.

In some cases the vital forces are so incessantly harassed by opposing causes, that they are kept continually in the field, and on the alert, unable to find a convenient and safe opportunity to go into repairs or recruit themselves, and are obliged at length to "give up the ship" at once, and thus make "a sudden death."

This is more particularly the case with hard drinkers. These individuals sometimes pass through raging epidemics, without being apparently affected by them, while others of good habits are taken down. Facts like these have led to the remark that "drunkards have but one disease, rum fever." Whereas the truth is they are full of various disease, (in the appropriate use of the term) but nature is never allowed a chance

to make the necessary developments to let it be known. The law of stimulation is kept unremittingly in operation until the energies are nearly expended, and then a few irregular and ineffectual attempts to better their condition close the scene; or they give up in despair. And if the right action theory of disease be true, physicians and others who labor hard to "break up" or cut short this work, must unavoidably be instrumental in effecting fatal terminations in some cases that would without such interference end well.

II. The second general particular in which art may perform acceptable and profitable service for nature, in many cases of disease, is to *carefully and seasonably remove, neutralize or weaken as far as is practicable or compatable with the safety and highest good of the system, all present causes of disturbance, whether primary or secondary.*

By primary causes are meant thorns or any foreign substance in the flesh; worms in the alimentary canal; poisons or any irritating matters in the stomach or any accessible part of the body; ligatures about the neck, chest or any part of the system; errors in diet, dress, exercise of body or mind, temperature, &c., &c.

By secondary causes are meant the *effects* of primary causes.

Through the continued operation of noxious causes and pernicious practices from generation to generation, portions of the system get reduced to a condition in which they become sources of evil rather than good to the community of which they are members;—and for the prevention, correction or abatement of their deleterious influence, art may interpose its kind offices to great advantage.

I will give a few examples.—

Defective teeth not only fail to fulfill the important office and purpose for which they were designed, but become nuisances to their companions and neighbors, and sources of expense to the animal economy. For

it costs much more to support a defective tooth and keep it above the point of pain than it does a sound one. And for the timely cleaning of foul teeth, clearing out and filling up of incipient defects, removing teeth that are past help, and supplying vacancies with artificial ones, the scientific, ingenious and well skilled dentist may be of incalculable benefit.

Glands may become enlarged and indurated, and in this state may press upon blood vessels, the brain or other important parts; or they may become cancerous—degenerate into foul ulcers—and thus prove a fruitful source of putrescent and destructive influence. Here art should make a timely use of the knife, and remove every vestige of the diseased gland.

Purulent matter is sometimes generated under the strong, compact fibrous envelop of the bones, called periosteum, as in the forming stage of the disease, technically called necaosis; and also in the fourth species of the panacis, whitlow or felon of the fingers; and in the third species of the felon between the periosteum and a strong membranous sheath involving tendons. Here, too, an early use of the knife will very materially shorten the curative operation, by preventing the accumulation and extension of the matter under these tough coverings, through which nature finds it difficult to give it a seasonable passage.

But it would be inopportune for me to attempt to point out here all the cases in which the highly improved and important art of surgery may render essential aid to the vital economy.

Imperfect digestion and consequent fermentation or play of the inorganic affinities upon crude, undigested matter, will give rise to acids, mischievous gases and other acrid substances that may be neutralized, corrected or weakened by alkalies and absorbents.

Vitiated secretions, too, internally and externally, may be corrected, or their acrid qualities blunted in

the same way—and sore, irritable parts may be shielded from the action of the vitiated secretions, by demulcents or smoothers, when such surfaces are situated where they can be reached.

In these cases, want of ability in the organs concerned is the reason why the digestion and secretions are imperfect; their action, therefore, as far as it goes, is right action and should not be directly interfered with. When they get the requisite power, they will make good and finished work.

A few other particulars in which nature may be aided by art, may with propriety be noticed in this connection.

First, By attention to the position of the body, in some cases of feeble vitality, the law of gravitation may be made tributary to the law of life.

Example. When the balance of action between the forces concerned in circulating the blood in the upper part of the body is interrupted or weakened, and the arteries throw more blood into the head than the veins can return, and consequently the blood accumulates in the head, as is generally the case in sanguineous apoplexy and epilepsy—manifested by fullness and redness of the face—the head and shoulders should be elevated above the other parts of the body, that the power of gravitation may aid the returning forces. On the contrary, if the *outward* current is too feeble, and the head does not receive a sufficient supply of blood, as in ordinary cases of fainting evinced by a paleness of the face—the head should be made to take a depending position.

In the lower extremities, where, from the natural depending position of their vascular tissues, the force of gravitation operates in favor of the arteries and against the action of the veins and absorbents, in a lax, feeble state of these latter vessels, (veins and absorbents,) it is often indispensable to the *comfort* of the individual, as well as calculated to facilitate the renovating pro-

cess of the complaining vessels, that the extremities should be kept in at least a horizontal position.

Second, A judicious bandaging of the lower extremities, when their veins and absorbents are feeble and unable to transmit their respective fluids without suffering themselves to be congested or distended, will give support to the weak vessels, and thus render a good service. And a broad flannel roller may be passed snugly around the lower part of the abdomen, immediately above the hips, to act as a temporary support in some cases, to good account.

Third, Passing a roller of flannel or some soft elastic cloth smoothly and firmly around parts affected with spasm, or holding them steadily with the hands, until the motor nerves of the parts have recovered power sufficient to control the muscles, will at least afford great relief to the suffering patient, and in no wise "counteract the living principle."

Fourth, Furnishing artificial heat, when the temperature is too low, or covering the body with flannel to prevent the too rapid escape of the natural warmth; and offering facilities for the reduction of heat when the temperature is too high by increasing the power of radiation, in the supply of cool air and the external application of cold water, will often prove a source of comfort to the afflicted, and sometimes render important aid to nature, without interfering with her arrangements and operations, when judiciously administered. Indeed, the supply of artificial warmth, or, what is better, natural heat by other bodies, when it can be furnished in sufficient quantity by strong, healthy persons without injury, is a *sine qua non* for saving life in cases of drowning.

Throw a number of small animals, such as kittens, rats or mice into water until life appears extinct, then take them out from the water and place one half of them in a warm sun or keep them wrapped in warm

flannel, and leave the other half in a cool place or even in the common temperature of the air in moderate weather, and the half that have had the benefit of warmth will revive and live, while the other half will remain inanimate.

It is probable that keeping up the temperature of the body by artificial means, in some cases of disease, may be absolutely necessary to save life. The vital functions are destined, in their best estate, and under the most favorable circumstances, to be performed in a warm medium of uniform temperature. To secure this end, the animal economy is furnished with a compound apparatus for the production and regulation of its own heat, which, when only in a *tolerably* sound condition, will maintain the temperature of the organism, especially the departments that contain the organs most essential to life, steadily at ninety-eight degrees. Therefore, in some cases of impaired health, where deep injury has been inflicted upon the calorific or heat-making tissue in connection with injuries done to other important organs, in the remedial changes unavoidable to restoration to soundness or prolonged existence, there may be for a short season such a deficiency of vital heat that the principle of life cannot be held on to, and the grand difficulty surmounted without artificial warmth; when with such timely aid, life may be prolonged until the calorific function is sufficiently restored to supply the deficiency, and render further aid from art in that particular unnecessary.

Cases of the kind here supposed may sometimes occur in epidemic diseases of the low, typhoid type; as in the petechial or spotted fever, sinking typhus, cholera, plague, and, in some cases of a similar type, from marsh effluvia.

In most cases of impaired health, however, it would be best to avoid much artificial warmth, even in cool weather. If the body is sufficiently guarded with light, soft flannel, nature will conduct her operations

most advantageously by being permitted to breath a free and pure air, although the temperature of the room should be quite moderate.

To detail all the particulars in which art may render acceptable and valuable service in the capacity of an intelligent and kind handmaid to nature, in meeting the many and varied little wants of the sick—such as changing their position when they are helpless, humoring their foibles within reasonable bounds, or judiciously controlling them, &c., &c.—would swell this volume beyond its prescribed limits; besides a good nurse can never be made by reading; it is an art that must be acquired by observation and experience in the sick room.

What I have to offer further respecting general directions for the management of the sick, I will arrange under three heads, namely, *exercise*, *diet* and *cold bathing*.

EXERCISE.

It will be difficult, if not impossible, for me to give the reader a correct impression of my views of this important branch of my subject, within the narrow compass to which I must restrict my remarks upon it at this time. It will be admitted on all hands that in acute diseases, until a crisis is formed and febrile action mostly subdued, "bodily exercise profiteth" nothing—that the more quiet the system is kept the better. But in protracted cases, in the absence of fever and other contra-indicating difficulties, when debility appears to constitute the principle obstacle to recovery, great stress is laid upon exercise. It is common to hear it said of particular individuals, they will never get strength without exercise. I met a young man at a store not many months since getting some wine for his wife who had been feeble some time. To the question by me, "what benefit do you expect to de-

rive from the wine?" his answer was, "to enable my wife to get about and take some exercise, she can never get strength while she is confined to her room and bed."

Some years since, under the old drinking dispensation, I was called to counsel a case with a physician, whom I found giving milk punch to a feeble child for the purpose of strengthening it, though indirectly, as he argued. In the course of a discussion which we entered into respecting the propriety of such practice, he said, "I suppose you admit that exercise under some circumstances gives strength?" To which I answered, "Exercise never, under any circumstances, imparts the *principle* of strength, but on the contrary always consumes more or less of it."

If we were to look at a set of large well formed muscles, full of vital energy, we should say that they were strong muscles, that the man who possessed them in that condition was a man of strength. Deprive those muscles of the vital power, and the man is deprived of his muscular strength. Here then we have the *principle* of strength, and also learn that it is a *union* of this principle with muscle that constitutes muscular strength. Without good muscle no man could be strong, however much of the vital power he might have. And without vital power no man could be strong, however much of well formed muscle he might possess.

If a brawny sailor, as strong as Sampson, should be shipwrecked and doomed for a number of days to buffet the winds and waves, and at length you were to find him stranded upon the shore, with barely life remaining, you would not think of putting the horse-whip to him, to make him exercise, that he might thereby recover his strength; but you would have him kept quiet, and nursed like an infant—fed at first with a very small quantity of nutriment, and have this gradually increased as the growing power of the nutritive

apparatus would bear it. And when strength had accumulated sufficiently to justify his sitting up, walking about and riding out, you would let him take exercise—this would be absolutely necessary to restore plumpness and firmness to the muscles, to give them sufficient size, and at the same time put them in that close compact state, in which alone the vital principle could give them elasticity and energy. If the sailor were to be confined on his recovery of vital power, and not permitted to use his muscles of voluntary motion, they would remain in a dwarfish, flaccid, feeble state.

Vital power and the nutritious principle are administered to the different organs of the body on the principle laid down by Paul for the distribution of bread in a community—a very sound principle—"that if any man would not work, neither should he eat." But the sailor would be inclined, nay, feel impelled to take all the exercise that the circumstances of his case demanded. As the system filled up with vital energy, you would not be under the necessity of giving him milk punch or of belaboring him with a cow-hide to make him move; for the vital principle, if long restrained, would be like "burning fire shut up in his bones," constraining him to take exercise. And it is a very general truth that where there is the principle of strength to give *ability* to move, it also imparts a *disposition* to move. Whoever goes into a school room, where there is a company of healthy children, and observes the difficulty with which they are kept still, and also watches their motions when they are "let loose from school," will not be apt to think that the vital forces are "lazy drones."

But I must not pursue this train of thought—let it suffice to reiterate the general principle that all vital action is dependent on vital power, and add that while action uses and consumes power, it never imparts any, so far as human knowledge extends. We know of no

action that pumps up, creates, or in any wise furnishes power that does not previously exist within the reach of the instruments of motion, and which would generally be called out and used by and under the direction of natural law, as fast as the highest welfare of the system demands, without artificial impulsion.

The secondary source and method of application of vital power are yet mysteries to the human mind.

The following directions may serve as a guide in the regulation of bodily exercise in all ordinary cases of derangement.

When the appetite and muscular strength remain unimpaired, as in common colds, slight casual pains occurring in different parts of the body, &c., and there are no very decisive marks of the near approach of a heavy disease, it may not be expedient for the individual to turn aside very materially from his customary avocations, except in being careful to avoid fatigue, and doing any thing that would make long or heavy draughts upon the vital forces; for even trivial pains or slight derangements indicate a bad state of the vital atmosphere, and while these tokens of disturbance hang around in the horizon, it will be prudent at least to be on the guard lest a desolating storm should burst upon the man in an unpropitious hour; especially would it be wise to do this when it was known that distressing diseases were prevailing in the neighborhood or region. If, however, there was no immediate danger of being laid prostrate with wasting sickness, no man should feel content to go on from day to day with head-ache, sore throat, cough, pain in the side or breast, rheumatic pains, stomach or bowel affection, or any other evidence of a depressed state of the vital funds in any department of his physical being, without inquiring most seriously why such was his condition, and putting himself at once under the most favorable circumstances within his knowledge and practical control for rising out of that condition.

But when it is clearly manifest that the vital forces are to be severely tasked and tested in a renovating operation, no unnecessary delay should be suffered in placing the system under circumstances in which the economy of life can carry on her work with the least possible interruption or loss of power. The man should "set his house in order" with all rational despatch, that his mind may be stript of all care and anxiety, and kept perfectly at ease, unaffected itself by hope or fear, (respecting the issue of the disease) and exerting no controlling influence over the physical organism. And as fast as the law of limitation is enforced, and motion becomes tedious or wearisome, the body should be yielded up, and not the slightest obstacle interposed to the operation of any branch of the law of the animal economy. I am aware that this is but repeating what has been said before, but the importance of the subject will justify "line upon line, line upon line."

After disease has passed its crisis, and strength enough has been restored to admit of exercise, and this is desired on the part of the patient, by a natural impulsive feeling which he finds stirring up within him, an indulgence in it may be allowed under the restriction of keeping quite within the strength, that is of being careful not to carry the exercise so far as to induce fatigue. But there is more danger of over doing than of short coming in this matter. It is in vain, or worse than in vain, to attempt to get strength by exercise, until there is *power*—the fundamental principle of strength,—that can be consistently spared to exercise with, for such efforts would draw off and waste some power, without adding to the stock of energy, or increasing, durably, muscular strength.

The cases of disease in which there is the most danger of doing mischief by over exercise, are those which have their foundation in a scrofulous or cachertic habit of body. In such cases the renovating pro-

cess advances tardily, requiring weeks, months, and sometimes years, under the best management, for doing up the work and putting the deranged parts in the best condition of which they are susceptible.

Under such circumstances impatience is very apt to resort to undue exercise, along with other compulsory means, for urging forward the tardy wheels of life, which only proves a retrograde movement. And especially is this true in those cases where the restorative operation occurs in connection with a critical period of life. Youth, while passing along the critical period of puberty, are, not very rarely kept for long tedious months and sometimes years, under the control, or within the jurisdiction of "General Debility," with some scrofulous or other alarming development. And to prevent a "running into consumption," excitements to mental and bodily exercise, are resorted to with the internal use of iron, bark, wine and other miscalled tonics, and stimulants; a most reprehensible practice.

By carefully watching the promptings of nature, and the effects of exercise, it will not often be difficult to graduate the latter to the necessities of particular cases. When it is more important for the purposes of renovation that there should be some general motion of the system for a period than that other operations should be continued unremittingly, some of the vital forces will be withheld from parts on which they have been previously bestowed, and applied to the muscles of voluntary motion, when exercise will be called for, and may be taken to advantage,—and when this purpose has been sufficiently answered for the time, the law of limitation will shut the power off from the muscles of voluntary motion, and the law of distribution remand them again to the parts from which they have been withheld, and now motion becomes irksome fatiguing and injurious; the invalids preferring a retired and quiet attitude; and they should be allowed to en-

joy it: let them sleep, mope, strech and yawn for hours, days and weeks at their pleasure, till they are again incited to action.

Let me not be set down as undervaluing bodily exercise. This, like every thing else "is beautiful in its season." Great muscular action is a sine qua non to the perfection of the human constitution. No man ever became a Hercules without Herculean exercise.

And from small beginnings, by strict economy, great things may be accomplished.

Proper use of the vital energies will secure a fulfillment of the promise, "Whosoever hath, to him shall be given, and he shall have abundance."

The great and only point to be gained in order to secure a successful prosecution of the work of medical reform, is to annihilate the great bugbear notion that disease is a pulling down affair.

Dr. D. in urging his objections to my views of disease, admitted that the action that was on its return to the usual point or common standard of health, was right action,—but contended that the action which was diverging from the healthy point was wrong action:—that is, when the symptoms were obviously improving, the action was right,—but when the symptoms were to appearance growing worse, the action was wrong.

Now here lies the gist of the whole matter. Is disease, in this aspect of it, to be regarded as a running down work? I will give a short statement of a case, as a practical illustration of my view of the subject.

Mrs. J. P. S., in middle life, declined for a number of months with an affection of the lungs which occasioned some apprehension respecting its final issue; but the tide turned, and the prospects became more favorable. In the upward progress of things, however, Mrs. S., was for a while still subject to short periods of declension. There would be a gradual improvement in the general symptoms for two or three months,

and then a sudden falling back of them, attended with spitting of blood, pain and soreness about the chest, with diminution of appetite and strength, and depression of spirits.

Doctor, said Mrs. S. to me one day, "I am satisfied that on the whole I am gaining, and were it not for these *running down* turns, I should feel very much encouraged. "Mrs. S.," said I, "you greatly misconceive of these turns to which you give the appellation of 'running down.' They are *running up* turns. A feeble team in ascending a long hill finds it necessary to stop and rest a little occasionally, to recruit its strength. You gain more in those days when you feel the worst, so far as the acquisition or treasuring up of vital energy is concerned, than you do in three weeks when you feel the best. The machine exhausts its power, runs down its weight, and these are the *winding up* spells.

It costs comparatively but little to sustain the vital operations when you feel the worst, and it is simply because there is but little energy expended on the complaining parts that they do thus complain. The income of power continues the same now that it was under a freer distribution of it, and while the law of limitation is in force, and you have, consequently, no muscular power to exercise with, be contented to keep still. When nature raises the gate and lets on the power, so that you feel like getting up and about again, obey the call and take all the exercise which you may feel disposed to, short of fatigue." And if I can succeed as well with my pen as I did by word of mouth, in quieting fears on this subject, I shall feel well paid for writing.

DIET.

The *quantity* of food to be taken by the sick, should be regulated on the general principle that has been laid down for the regulation of exercise; according to the demands of the system, to be measured or ascer-

tained by the promptings of nature, and the effects of what is taken. In the most difficult or critical parts of the renovating operation, when all the forces that can be mustered and spared, are needed for the removal of defects and laying a foundation for rebuilding, the nutritive process will be wholly suspended, so long as sustenance can be furnished to the laboring organs from depositories in the different parts of the body; it being less expensive and more advantageous to the economy of life, to sustain her workmen with nutriment that has been already assimilated or animalized, than to manufacture and furnish it from raw material. But when this source of supply fails, there is no alternative but to clothe the organs of nutrition with power and call for raw material, or "give up the ship," for they that work must eat. While therefore there is no call for food, no disposition manifested by the stomach to receive and use it, whether the reluctance is occasioned by a diversion of power for some other purpose, or occurs through a total failure of power, it will be in vain to urge food upon the stomach. And when a faint, feeble call is made for food, care must be taken not to over feed, for here too the danger is on the side of over doing. In cases of great debility the common belief is that food must be taken for the purpose of communicating strength; but this is as great a mistake as the supposition that exercise strengthens. Food carries no vital power into the system with it, but requires much to convert it into organized texture, and endow it with vitality. Any quantity therefore that is taken into the system, beyond the ability of the nutritive apperatus to anamalize, will do more hurt than good. If starvation constitutes the greatest source of danger, a concentration of all the disposable forces will be made upon the organs of nutrition, and call or appetite for food will be equal to the ability of the organs to use it,—it can answer no good purpose then to employ excitants to appetite. If there is not

power enough to create appetite, the case is a hopeless one. Provocations can neither create power, nor make an appetite without power. The common non-professional rule of giving food in cases of debility, "little and often," will answer very well as a common one, by striking out the "often."

The *quality* or kind of food best adapted to particular cases, must be determined by the nature or circumstances of the case. "Bread is the staff of life," and in all cases of greatly impaired health, some preparation of good wheat, when such can be procured, should compose a considerable portion of the diet, and in extreme cases constitute the alpha and omega of it. It may be used in the form of well made bread, crackers, or gruel. When the appetite is very small or feeble, a little bread, gradually but thoroughly toasted, and moistened with hot water, is as good an article of diet as can be furnished: if this is not relished, wait till it is. It is useless, nay mischievous, to attempt to foster a squeamish appetite.

Unbolted Wheat Meal preferable to Bolted.—It is well known that life can not be sustained long in the best constitution on any kind of mere nutriment, without some innutritious matter to give distension and support to the bowels; and for this purpose nothing is so well adapted in quality and proportion as the coarse, innutritious part of wheat; it would therefore be unwise to vary this proportion, either by rejecting some of the finest or more nutritious part of the wheat, and using the coarsest, or using the fine and rejecting the coarse. "What God hath joined together," in an article that constitutes so large and so important a part of the means of our physical existence as the species of grain which we are now considering, man should not sunder.

As the appetite waxes stronger, and firmer or steadier, a proportionable latitude among eatables may be indulged in; such as rice, maiz or indian corn—when

this can be borne without passing into fermentation and souring the stomach, as it is apt to do in a feeble state of the digestive organs—potatoes, buckwheat, beans, &c., with succulent vegetables and fruits; always remembering to keep within the ability of the laboring organs.

"Let your moderation be known to all men."

In febrile affections, where the heat of the body is much of the time above the natural temperature and accompanied with thirst, sub-acid drinks, or water soured with current juice, the juice of limes, lemons, oranges, &c., (without sweetening,) are generally palatable and useful.

Recovery from protracted sickness on a pure vegetable diet, affords a favorable opportunity, for those who have occasion for it, to escape from the habit of flesh eating, without incurring the horrors incidental to a sudden change in diet.

Many persons have much more correct notions about diet for invalids, than they have respecting diet for those who are in health. They think it is important that those who are out of health should be particular about what they put into their stomachs, until they get well, then they may eat and drink what they please, till they begin to run down again.

Dining abroad one day, where a large table groaned under the weight of epicurean dishes, I saw but two articles on it, bread and potatoes, which I judged to be suitable for a human stomach, and from which I made a good meal. A lady present, till then to me a stranger, said, "I presume you are dieting for health." "Yes," I said, "I am. I dieted for *disease* fifty years, to my entire satisfaction; for the balance of my days I intend to diet for *health*."

It is commonly believed that a simple vegetable diet is well adapted to, or "good enough for" *students*, who use but little bodily exercise, but that *laboring men* need something more substantial to sustain them

under their toils. Laboring men need *more* food than sedentary students do, but not by any means that of a *better quality*. It is true, laboring men can bear a much greater amount of the action of constitution spoilers, "without feeling it," than students can.

A farmer, or out door laborer, who takes exercise in the open air sufficient to impart expansion, solidity and vital tenacity to every department of his physical system; who is exposed to all weathers, and frequently enjoys the luxury of a "shower bath," at the hands of nature, may dine on tenpenny nails fried in butter, with comparative impunity. These might after awhile reduce the sensibility to a few exquisite dispeptic touches, but they would have to "scratch for it." Not so with the sedentary student. If he would enjoy any thing like comfortable health, he must use a good diet and let stomach scratchers alone.

Milk.—I have reserved this article of diet for separate consideration, from the importance which I attach to it, and because, in my estimation, its true character is greatly misunderstood, by many dietetic reformers. I have been told that to be consistent I should give up the use of milk, because it was animal matter—an animal secretion. I do not renounce the use of animal food on account of its *name*, but on account of its *qualities*. Grant, if you please, that milk is an animal secretion, what then? Vegetable substances are secretions, but they are not to be rejected on that account. For what purpose were they secreted, or what purpose can they answer in the animal economy, when admitted into the human stomach? —is the question. Animal bile, or gall, is a secretion, and useful in its place; but no one would think of using it as an article of diet, because it has no adaptation to the end for which food is used; but milk has such an adaptation. It is secreted, or rather elaborated, (for it can hardly be called a secretion,) expressly for a nutrimental purpose and for no other;

and when it is prepared from good material by healthy organs, it possesses no other than simply nutritious and innutritious qualities. But this is true only of new or unchanged milk; for like grape juice, and other vegetable substances, it is liable to decomposition, and any change that it suffers detracts from its nutritiousness, and may add, and some of the changes do add, a poisonous or irritating quality.

To what conditions of the system is milk more particularly adapted?

Answer. To first and second toothless childhood, and other feeble and infirm states of the body.

One objection that was raised against animal food, to wit, that it was too easy of digestion, or requires too little exercise of the nutritive apparatus for its reconversion to organized and living matter, lies in some measure against the use of milk, for persons in the prime of life. It is not as well calculated as good, unwrought vegetable matter, for giving solidity and endurance to the system, yet there can be no objection to an occasional and moderate use of it by any one who has nutrimental power enough to digest common food; and it makes a good stepping stone by which to ascend from the use of flesh meats to a pure vegetable diet; and moreover it is very convenient as a resort for vegetable eaters who are under the necessity of being abroad, where it is often difficult to get such food as they would like, (for milk can be had almost any where, and at any season of the year, and it is far preferable to any form of flesh meats;) but its superlative excellency consists in its adaptedness, not only to infancy, and to the other extremity of life, when "the grinders cease because they are few," but also to a great variety of cases of impaired health, more particularly, however, in chronic affections, and most of all in those that are connected with a scrofulous diathesis, and of these, such as have the predominance of local affection in the lungs.

Persons who have not been much accustomed to the use of milk, or who have not used it recently, should begin very moderately with it, once a day, in the morning, at a fixed hour, gradually increasing the quantity as it can be borne and is relished; and after a while, taking it two or three times a day, morning, noon, and towards evening.

Regularity should be observed in relation to every kind of diet, both in the time of eating, and in the quantity taken, when the appetite is uniform.

Milk is best when taken fresh from the milk pail. Where this is disagreeable at first, a little use will make it pleasant, and give it a decided preference over every other state of it.

By an observance of the three following rules, patients may avoid being "tired of every thing."

First. Be systematic in the time of taking food.

Second. Be content with a small *variety* of unstimulating diet.

Third. Keep within the nutritive powers, in the quantity of nutriment taken, let this be ever so small.

I have many facts treasured up, collected from the circle of my own practice and observation, and other sources, confirmatory of the salutary nature of a milk diet, in chronic or protracted cases of impaired health.

The following case was related to me by Dea. Nicherson of South Dennis, Mass. The prescription in the case is admirable; I should not know how to improve it; and I hope my readers will not spurn it on account of its source.

Mr. C——, merchant of Boston, in an advanced stage of lung consumption, as a last resort concluded to try an inland journey. After traveling slowly and interruptedly for many days, and getting worse and worse, he put up at a public house in one of the western states, under an apprehension that it would be his last stopping place on earth.

Mr. C. was there informed that there was a squaw in the neighborhood, an indian doctress, who was very skillful in curing lingering complaints. She was brought and gave Mr. C. an assurance that if he would follow her directions, he would recover.

Directions. Throw away all your medicine. Get a good, healthy cow, have her kept near by in a good pasture, and milked three times a day, morning, noon, and evening; and at each of these times, take of the milk, fresh drawn, with bread, rice, or supawn, (hasty pudding,) as the stomach will bear of them. Use soft water for drink, according to your thirst. Sit up, walk about, and ride out, when you feel strong enough to do so, but never go beyond your strength; do nothing to tire yourself.

The most formidable objection which Mr. C. felt and urged against the adoption of the prescribed course, was the idea of a total abandonment of medicine, more especially of the cough and pain quieters. But his tawny doctress was peremptory in that matter. She told him that there was no help for him, short of giving up all his "doctor stuff."

Mr. C. complied with the directions, and in a short time he found that he was sensibly improving, and finally recovered his health.

WATER.

The only purposes for which the internal use of water is needed, are, the dilution of the fluids, that they may be circulated freely through the body, and to serve as a medium in and by which worn out and superfluous matter may be conveyed from the body. And for these purposes water is indispensable; nothing else can supply its place; there is no other diluent. Milk carries with it into the system a just proportion of water for the ingredients of which it is composed, so that those who subsist wholly on this article have

no need of other drink. Succulent vegetables also furnish water in considerable quantity. Pure soft water only, or such as comes the nearest to this that is procurable, should be used internally. This is a consideration of great moment in all cases, but particularly so in worn down, irritable habits, where the protective energy of vital parts is nearly exhausted.

Water may generally be used freely, according to the thirst or desire for it. Almost the only exceptions to this rule are where the water occasions distress in some part, or creates or aggravates nausea or sickness of the stomach soon after it is taken. It should be taken cool, except when the system is under a chill, or when it occasions distress by its coldness, then it may be used warm; or if preferred, it may be taken in the form of coffee made of parched or roasted corn, rye, barley, and the like.

It is not often that fresh water, of the temperature of that taken from deep wells, occasions distress or is unpalateable except where the stomach has been enervated by a long habit of warm narcotic drinks. Warm water is itself enervating, aside from the effects of whatever may be infused in it.

In order to a high and permanent state of health, the human system needs to "live and move and have its being" in a medium of a lower temperature than that to which it keeps itself by its own internal fires —including the air inhaled by respiration, (which, when filling all the air cells of sound lungs in a well formed chest, covers an area in the aggregate equal to the whole exterior surface of the body;) and also substances taken into the stomach.

COLD BATHING.

The external use of cold water should be regulated on the general principle laid down for the government of exercise and diet.

A very free use of it in any and every form by strong, hale, muscular men, is admirably adapted to constringe, condense, and give firmness and elasticity to the living fibre, and thus prepare it for self-defence, energetic action and endurance. And cold bathing may be used by all other persons to the same effect, in proportion to the unencumbered vital activity of their systems. By "unencumbered," I mean freedom from pending injuries or defects that are calling for a remedial process. To illustrate, we will suppose that A and B have both been affected by typhus contagion, and that A has recovered from its effects—has passed through a thorough renovating operation—the injured parts, or such portions of them as were disqualified for their place or office, have been removed, and new supplied, and the system has regained a good degree of vital activity, which is now unencumbered. B is in the incipient stages of a recuperative process; in his case, therefore, the renovating work, or the removal of damaged parts and supplying their place with new matter, remains yet to be done; and consequently, the vital activity of his system is greatly encumbered. In this case, the application of cold water may, for a short season, contravene the remedial efforts of nature, and restore B to apparent health; but there will be no real benefit from the action of the water, for there is not free disposable power enough to follow up that action into a consolidating effect; and even if this were done, it would be like expending labor in a repair on a ship to-day, that is to be undone to-morrow, before the ship is taken off the stocks.

The whole machine must be unstrung, and defects removed before the consolidating work can be permanent. Physicians have observed that the action of cold on the human system was sometimes tonic, sometimes stimulant, and sometimes sedative. The *proximate* effect of cold on a sensitive part, is always a per-

turbating one. The immediate effect is the sudden abstraction of caloric from the part, which disturbs for the moment the harmony of action between the two parts of the calorific function, indirectly diminishing the action of the exhalents, thereby lessening the amount of heat thrown off in a given time, and increasing that of the calorific process, through an augmentation of arterial action. When there is unencumbered vital activity sufficient, under the control of the law of accommodation, to take advantage of these circumstances, and prepare the vessels that have been subjected to the refrigerent action for future attacks of a kindred character, and to "endure hardness," the ultimate effect will be a tonic and good one. When there is just free excitability enough to be rallied and made to respond to the action of the cold, but not sufficient to hold on and accommodate the parts to similar future occurrences, the effect will be a transient, stimulant one. But when there is no rallliable excitability, that is, when the condition of the system imperiously demands that the vital forces shall all remain at their present posts, so that none can be spared to obviate even the immediate effects of the cold by a reaction, the action of the parts on which the cold operates will be depressed, constituting a directly sedative effect. In the two latter cases, the application of cold fails of securing any good results, and occasions positive injury by counteracting and deranging the regular administration of the laws of the vital economy; and this injury will be in proportion to the default of power to meet the exigency of the case, and secure a benefit at least equivalent to the disturbing effects of the cold.

There is the same liability to deception and delusion in the external application and use of cold water, that there is in the use of other excitants. This fact, in connection with another, to wit, that disease is every where considered an enemy to vitality, is running the

world wild on the subject of cold bathing. It is taken for granted that the tendency of diseased action is towards death; this is acted upon as a settled incontrovertable truth. It then follows as a matter of course that something must be done to weaken and break up this tendency, and give the vis medicatrix naturæ, or remedial power of nature, a chance to put things again in statu quo. And the mode of treatment that saves the most lives, or *cures* the largest proportion of cases must be the best. This last is a very natural and rational conclusion,—and I suppose there is no doubt that the "cold water" system of treatment is more successful, and better in every point of view, than the old plan of treating disease by active medicine and the lancet. Yet the success of the best "cold water establishment," does not begin, as the saying is, to compare with the success of the "Rain Water Doctor," who established himself in Brooklyn, opposite New-York, in 1809. There was scarcely a limit to the success of his practice. In a few months his fame was spread abroad in all the region round about, and multitudes went and were carried to him "to be healed of their infirmities." His plan of treatment was very simple. His patients were furnished with "roots and arbs," which consisted of dried inert leaves, flowers, grass or whatever of this kind he could gather in his rambles about the field, that he knew possessed no active principle, which were to be steeped in rain water and taken according to written directions,—they were to use rain water for culinary purposes and for drink,—and were restricted to a plain simple diet, almost exclusively vegetable.

But after the "Rain Water Doctor" had published a pamphlet, unfolding his "no medicine" treatment, his patrons thought that "Abana and Pharpar, rivers of Damascus, were better than" rain water; so they turned, or staid away in great dudgeon.

But I am not disposed to think or speak lightly of the "Cold Water" enterprize. It has already accomplished much good, both directly and indirectly. And when it shall come to be conducted on true physiological and pathological principles, it will be instrumental of incalculable and *unmixed* good to the human family.

SPECIFICATIONS.

Colds, cough, and consumption.

After what has been said on the treatment of disease in general, the affections of the system that fall under the above appellations will need but little more than a few cautions given respecting them.

First, Never treat even a common cold with indifference. It is a serious matter to have so important a part of the system as that which is concerned in colds brought down to a complaining point. Effectual measures should therefore be taken to have it restored to soundness, when such palpable evidence exists of its being in a damaged state as is furnished by the phenomena to which the name of cold is given. I would not however have these difficulties removed as the woman cured her rheumatism. A Thompsonian doctress, who was much afflicted with rheumatism, asked me what was good for it. She said she could cure it, "but it would come back again." Colds should be cured so that they will not *come back again.*

Scarcely anything has ever occasioned me more sorrowful reflections than to witness in young folks, as I am almost constantly compelled to do, a frequent recurrence of colds or coughs, knowing as I do that they are harbingers of much physical suffering and premature death. And at the same time see these individuals strengthening the foundation of their calamities by a stimulating diet, neglect of cold bathing and out door exercise, or any sufficiently active and expansive exercise, and by keeping a large waste gate open for

the escape of vital energy, by a too close application of the mind to study: and superadded to all these efficient causes of derangement, in females, a compression and restraint of action of all the essential instruments of vital operations, and a shielding of the person, by vail and parasol, from the healthful influence of sun and air. What wonder is it that our newspaper brings us so often an obituary notice of some young person who "had been a member of this Institution?"

Second, Beware of cough quieters, or what is called cough medicine of any description. Cough has its foundation in deficiency of tone or power in the pulmonary system, and the only remedy consists in a replenishment of power by an operation of law, which shall secure an excess of income over the expenditure sufficient to free the complaining parts from embarrassment; and the only way in which art can aid natural law, is to place the system under circumstances best adapted to economize expenditure.

Stimulants can bring relief only by rallying the vital forces, and thus enhance their expenditure. So that the temporary gain is more than counterbalanced by an ultimate loss. Neither can syrups or demulcents, as they are called, answer any good purpose. It is supposed that the smooth, slippery quality of syrups and mucilages is carried by the blood to the irritable parts of the lungs, which it sheathes over, and thus protects from the acrimony of fluids and the action of other irritants. But this is a mistaken idea. Sugar, which forms the basis of syrups, and mucilage are not carried into the circulation in their natural state, any more than bread, potatoes or other kinds of nutriment are; but when they are received into the stomach, like other nutrimental matter, they are subjected at once to the action of the gastric juice, and converted into chyle, when there is power enough to produce the change, and then they answer no *better* purpose

than a quantity of bread sufficient to make the same quantity of chyle would, which might be wrought into this article at much less expense. And if there happens not to be power enough in the gastric system to secure their conversion into chyle, they will be subjected to the action of inorganic affinities and turned into vinegar and sharp acid gasses, and go forth to rasp and fret tender surfaces, rather than act the part of smoothers of them. And, furthermore, nature would rather make her own smoothers, for which she is amply provided with all the necessary machinery, and only asks that suitable material should be furnished, which good bread and other simple nutriment and water abundantly supply.

If those who are afflicted with coughs will take good care of themselves and do nothing to "counteract the living principle," they will find that nature will be very careful to keep the bronchial vessels lubricated, and the cough open and easy; or if, at times, through straitness of means, the throat gets sore, and the cough dry and harsh, it will not be long before a freer secretion will loosen the cough and remove the soreness of the throat; and a little double experience will show a decided advantage of the "let alone" over the "break up" mode of treating this affection.

Third, With regard to consumption, my caution is, not to let the dread of its getting "seated" impel to improper means for relief. The only *seating* there is about consumption is *want of power* to raise the action and restore the condition of parts affected to their usual healthy standard.

A comes up to a certain period with his ordinary health; is then affected with a cold, or something like a lung fever, and in a few weeks dies with "quick consumption." The stock of vital funds provided for the tissue of organs that are the first to give out is exhausted. Nothing can save him. He dies as surely and inevitably as a lamp goes out when its oil fails, and

there is no "oil in the vessel with the lamp," from which to replenish it.

B goes down with the same complaint, but holds out longer,—he dies with a "lingering consumption."

C is reduced very low, his lungs are in a bad state, and for a long time it is extremely doubtful how the case will turn with him, but at length he recovers.

The consumption was as much "seated" in one of these cases as in the other, save in the comparative eking out of power. In each and every case all was done that could be done by the vital economy to restore injured parts, *under the circumstances*—these might or might not have been the most favorable for the restorative work. If the circumstances were not as favorable as they might have been, then, perhaps, the two first cases might have recovered, and the other been restored sooner and better under more favorable circumstances.

The great object to be kept steadily in view in the treatment of consumption, is to save power to be placed at the disposal of the animal economy for the special benefit of the lungs. Every other department of life should be laid under the most rigorous system of tribute to this vital department. In extreme cases, cold bathing in every form should be dispensed with, and the body kept covered, summer and winter, with soft flannel; and in cool weather the surface should be defended from the action of cold by sufficient additional covering, a proper regulation of the temperatue of the room, or—which is better when it is practicable and circumstances favor—a removal to a more genial clime, where the temperature of the air is mild and uniform. These precautions are preeminently important. It is exceedingly detrimental to weak lungs to have the surface of the body subject to sudden changes of temperature. But the body should not be immersed in a heated, vitiated atmosphere. The lungs should have pure, fresh air.

It will be unnecessary for me to go into particulars respecting diet and exercise in consumptive cases, as my views thereon may be easily gathered from what I have already said under these particular heads.

After all the external circumstances have been attended to, let the internal economy do the rest of the work. No action will be suffered to deviate one hair's breadth further from its usual or highest standard of health than the nature of the case demands, or renders unavoidable.

Therefore, if a hectic fever prevails, let it prevail; if there are hard turns of coughing, endure them; if the lungs become congested, ulcerated, indurated or hepatized, submit them to the control of the vital economy; if there is extreme emaciation and debility, keep quiet. Sometimes the "furtherest way round is the surest way home."

For a long time the pathway of lung consumption has had much of my attention, for it is through this avenue that I shall descend to the grave. The pulmonary department of my physical system is the most defective, and when the general powers fail, this will be the first to give out. And when the tired organs shall falter, so as to present me with a view of the "dark valley," I shall not resort to a compulsory process with the economy of life, not so much even as to "give nature a little jog" to save me from its entrance.

CROUP.

Wash the feet in warm water, and put soft woolen socks or stockings on them. Cover the whole body with soft flannel and other adequate, light, warm dressing. Cover the throat and upper part of the breast, from the chin down, with a thin, smooth linen or cotton cloth, spread with cerate made with bees' wax and lard of the consistence of tallow, or with

tallow—which will answer very well—and over this lay some cotton batten or wadding of tolerable thickness. Give the child in charge to one or two judicious nurses, (excluding all other persons,) who should keep their little patient in the most quiet and comfortable position—or a position most favorable for breathing; give it water as often as it is needed and can take it; clear phlegm from its throat whenever there is occasion or opportunity to do it. The temperature of the room should be moderate and even, and the air pure. If the severity of the disease is only of a few hours continuance, as is generally the case, no food should be given until a crisis is past. If the case is a protracted one and food seems to be necessary, a little plain toast of bread or crackers may be given once in four or six hours; or if the child is at the breast, some of the breast milk; or a little new milk, if the child is just weaned.

These directions are designed for cases that need confinement; when there is only croupy cough, with no special straitness of breathing, or loss of appetite and strength, a little care in keeping the child in may be sufficient.

The reason for the external application to the throat I will explain under the head of

INJURED AND FEEBLE PARTS.

A man of strong constitution, in the vigor of health, should not be afraid of trifles. It will conduce to the permanency of his health and to longevity for him to accustom himself to be much abroad in the open air, in all weather, hot and cold, wet and dry, and that too without being particular to guard his health by external covering.

But the case is far otherwise with the man who has a broken down constitution, and but a slender stock of vital energy in store for its protection. To a man

thus circumstanced, a slight exposure to a storm or sudden change of weather, without suitable protection may be the occasion of irremediable ruin to his physical organization; whereas by timely and proper care in keeping in a comfortable room, or by being sufficiently clad to guard him against changes or extremities of weather, until a regular income of power shall "strengthen the things that remain, that are ready to die," his life may be prolonged; and then as his strength increases he may and should harden himself for the endurance of vicissitudes of weather and other causes of physical derangement which he may be called to encounter.*

And what is true of the whole system in these respects is true also of particular portions of it, and therefore the judicious application of covering to weak parts will facilitate the renovating operation that is going on within, by defending the weak vessels from the action of irritants that might otherwise come in contact with them and also guard them from sudden changes of temperature.

For bruises and many kinds of injured local affections, a dressing something like the one recommended, in the preceding article for croup, will be useful. The tallowed cloth is designed to take the place of the healthy, unctuous, true skin, when the natural one is abraded, dry, inactive or feeble. Many other smooth substances do well, as oiled silk, smooth, green, innoxious leaves, &c. These, with a covering of cotton,

* A word of caution here may not be inappropriate. Many persons of slender constitution, when they see others braving all weathers with impunity, think that they may venture too, and often do beyond their power of endurance to their injury. It is not so easy a matter for feeble habits to emerge at once, nor so rapidly, from their frail condition as many imagine. I have tried twice within ten years, by attention to diet, cold bathing &c., to bring my physical corporation to endure winters without a flannel under dress, but in both instances lost more than I gained, and shall never make another attempt; though if I were a young man I would.

make light and comfortable dressings for weak and tender parts, and combine most of the soothing and emolient qualities of the common poultice; and where this may be preferable for a while, as it is in some cases of deep phlegmonous inflammation, for the promotion of suppuration, the cerate and cotton may be advantageously substituted for the poultice as a finishing dressing, on account of its convenience in application and for locomotion, if it were not preferable on other accounts.

For weak backs and some bruises, where the skin is not off, nor the parts too tender, adhesive plasters often answer a good purpose. It is immaterial of what the plasters are made, provided they are mild and will hold on. This kind of dressing is very convenient as it needs but one application. I always keep a strip of cloth, (old cotton,) spread with plaster, by me, and when I get a bruise, tear off a piece of plaster, warm it, and cover the bruise, and that is the last of it.

A very good plaster may be made by melting together, over a slow fire, eight parts (by weight) of resin, (common rosin,) one part of bees' wax and one of lard. When the mixture is cool enough, take it into the hands and work it thoroughly, as boys do molasses candy, or shoe-makers their wax. The plaster may be made harder or softer, for summer or winter, by varying the proportions of resin and lard.

BURNS AND SCALDS.

The *principle* on which these affections should be treated is a very plain one—to prevent a too sudden falling of the action of the injured vessels, until the law of accommodation can bring to their aid the proportion of power that should fall to them under their new circumstances—which it does in an operation that is called the "reaction of the system"—and then treat them as sores of the same general character from other causes should be treated.

To fulfil the first intention, instead of using means to "draw *out* the *fire*," we should use means to keep the *heat in*—and for this purpose nothing is better than fine, carded cotton, which should always be kept in readiness for emergencies of this kind, and applied at once, and in quantity sufficient to make a thick covering for the whole burnt surface, no matter how thick at first, and as reaction comes on, which will be sooner or later according to the strength of vitality in the system, the cotton may be gradually removed until it is reduced to a light dressing.

Before the cotton is applied, however, the parts should be well covered with mild oil, lard or some soft grease; and when the burn or scald is deep, and there is a probability that the skin will be removed or raised in a blister, such part or parts should be covered with a fine, smooth cloth spread with cerate or tallow. If the cotton is not at hand, soft, warm flannel should be applied, or other means used to keep up the warmth till the cotton and other dressings are in readiness.

A prompt and faithful carrying out of the course of treatment here recommended will be important in proportion to the urgency of particular cases. Small burns on good habits of body with full vitality will heal speedily with or without *any* treatment;—whilst, on the other extreme, the least possible burn of the tip end of a finger will destroy life in spite of all that art can do or leave undone.

There is a great variety of *domestic* quackery on this subject, and many specific remedies for burns; but physicians have but two general plans of treatment—phlogistic and anti-phlogistic—stimulating and unstimulating, or heating and cooling. Cold applications, such as cold water, cold poultices and the like, produce, indirectly, something of the same ultimate effect that warm cotton does, *when there is a good supply of ralliable power in the system.* In other cases the operation of the cold will be only sedative and injuri-

ous, and that in proportion to the default of excitability. But in no case will the operation of cold secure an advantage, so far as the end or cure is concerned, over the cotton. There has been excitement enough produced in the system by the action of the caloric which caused the burn or scald, and now the simple object or business of art is to keep up the warmth and action, until the law of equilibrium shall restore harmony, and apportion the power in store to all parts of the system respectively, according to their present necessities.

If a strong man burns his thumb or finger, he may plunge it into a pail of cold water for a few moments, for convenience sake, and then put on a dressing of cerate or not, as the case may be.

But in all doubtful cases, prudence would dictate the warm cotton course. Some time since I saw a child badly scarred in the face from a burn, which was treated first by cold poultices of rasped potatoes. I am confident that the cure would have been better and the scars much lighter under the cotton mode of treatment.

When a person of slender constitution has had a considerable portion of the surface of the body burned or scalded, the body should be wrapped immediately in warm flannel, and be kept in a warm room until the cerate and cotton dressings can be made ready.

If, in the progress of cure, there should be much matter in the sores or burnt places, the cloth and cotton, or most of the latter, may be dispensed with, and scraped or patent lint spread with cerate used for dressing. And if the parts should at any time become dry and inflamed, a light, mild poultice may be used until the inflammation subsides. If the matter should become ill conditioned and offensive, the parts may be sprinkled with a little very finely powdered charcoal, chalk, magnesia, and the like; or covered occa-

sionally with a light effervescing poultice, made of the crumbs of wheat bread and milk, or grated carrots scalded in milk with a little wheat bran or crumbs of bread, and a little lively yeast added as the poultice is about to be put on to make it "work."

Poultices should always be made very soft, and greased over before they are applied, and a piece of gauze or very thin cloth may be interposed between them and the flesh for the convenience of removal. When the sores are extensive and the vitality feeble, but a small space should be exposed at a time for dressing.

If "live creatures" should generate in the recesses of deep burns, as they will sometimes, the most effectual way to destroy them is to use some preparation of a plant known botanically by the name of *datura stramonium*—generally called thorn apple, and vulgarly, stink weed. A decoction may be made of the bruised seeds and used as a wash, or the fresh expressed juice of the leaves may be applied. But a small quantity of either should be used at once, and care taken not to have it spread over more surface than is necessary.

Caution. Do not insist that nature shall move forward in a steady, uniform and undeviating course. In difficult cases she must have her resting spells, when external appearance will be unfavorable;—the appetite, pulse and strength will flag, and the sores look bad. This is not to be taken for evidence that the course of treatment pursued is wrong, and that a change is called for, though it will always be in point to inquire whether every thing is just right. Particular attention should be paid to cleanliness, breathing pure air, and maintaining a cheerful easy state of mind.

CHILBLAINS.

These troublesome and often distressing affections—well known to most families—are the sequence of the

action of cold; or, in stricter language, the too great and smdden abstraction of heat. Children and old people are more subject to them than those in middle age; and such as are of a cachectic or scrofulous habit are much the most afflicted with them.

A "frost bitten" or frozen part is to be treated on the same principle that a burnt one is, to wit, the promotion of a too sudden transition from its present unfortunate position. And therefore the simple indication to be attended to in this case is, to keep the heat *out*, that the law of equilibrium may have time to collect and forward to the suffering part what aid it can, to save it from a dissolution of continuity, to which it would be liable by sudden admission of caloric into it, in its frozen state. And no better means can be resorted to for carrying this indication into effect, than a heavy covering of cotton or flannel. When frost bitten parts are restored to their natural temperature, and the law of accommodation has done for them all that it can do, in the first or transition stage of the disease, they are afterwards to be treated on general principles. Suet skin, or the thin membrane covering leaf tallow, makes an excellent first dressing for chilblains, (and for other tender surfaces too,) and over this, (or a cloth spread with cerate when this cannot be obtained,) a covering of sheet cotton should be laid, sufficient to guard the parts from a sudden transition to heat or cold, for one is as injurious to them as the other.

Some old people get bad burns and chilblains on their extremities from elevations and depressions of temperature that would produce no sensible effect on most other persons.

FAINTINGS.

Cut the corset lacings and "let the oppressed go free," place the body in a recumbent position, and then

leave the case with nature. There will be no more necessity for using smelling bottles, camphor, cold water and the like, for the purpose of rallying the vital forces in order to prevent a fatal asphyxy, than there would be for using the horse whip, to make a starving man eat when suitable food was set before him, his hands untied and full liberty afforded him for helping himself.

EXCEPTIONS.

To the general *principle* of right action laid down in this work, there is no exception so far as the separate action of individual organs is concerned,—by which I mean that the nature and tendency of the action in a given organ are right under the circumstances, be that action more or less, at its natural healthy standard, or deviating from it to the widest extent, so far as the welfare of the organ itself is concerned, viewed in an isolated capacity. But from the complexity of the system, one organ may be compelled to take on an action that will tend to the destruction of its neighbor, and through that to the destruction of the whole system. I will state a case of this description, and it is almost the only one that is liable to occur, or that is often met with in practice;—strangulated hernia, or rupture. This is commonly constituted of a split muscle—whose fibres have been sundered by violence—holding in too close embrace, a portion of a bowel, urinary cist, or some near neighbor, that has had the misfortune to be crowded through the unnatural aperture, and that too at a time when the vis nervea of the muscle is incompetent to the control of the vis muscula, so as to prevent the unfriendly or too ardent gripe. The contraction of the muscle is in obedience to the simple law which is now in force, and is so far right action,—and were it not for the unfortunate con-

nection into which the muscular fibres have been forced, there would be no necessity for an interference with their action; the tone, or controlling power of the motor nerves would be better and sooner recovered without than by a compulsory interposition of art. But now the contraction is choking a vital part, and if it is continued a few moments or hours, before relief is afforded in the natural way, rapid inflammation,—gangrene and death may be the result. The muscle must therefore be either humored or driven into a divorcement of the connection;—it must relax its grasp and release the strangulated part.

If this end can be answered by so improving or favoring the circumstances under which the action of the parts is being conducted, that the vis nervea can get the control of the vis muscula by an undisturbed operation of natural law, this course should be taken and no other. If this fails after a fair but short trial, (for when a vital part is strangling, time must not be wasted) a general rally should be made of the whole vital forces. If this also fails of procuring a release of the constricted part, recourse must be had to a surgical operation.

I have succeeded in reducing a number of bad cases of strangulated hernia by the following treatment:—Have the patient laid quietly in a warm bed; a large quite large, soft and warm poultice applied over the tumor; * the foot of the bedstead moderately elevated, and as much warm water thrown into the lower portion of the bowels as can be borne without pain and uneasiness.

*Some physicians recommend cold applications to the tumor, such as ether, to produce a state of cold by evaporation, or snow, pounded ice and salt, &c., with a view to diminish the contents of the tumor that it may be thereby the more readily reduced,—but I consider the advantage to be obtained in this way very trivial, compared to the benign influence of the warmth in relaxing the stricture, which cold only serves to increase.

After these means have been in operation an hour or two, it will generally be found that the hernia is self-reduced, or may be put back with very little tact. Nothing but moderate force by handling, and that skillfully applied, should ever be used for the reduction of hernia; for unskillful pressure, or much violence, would be like pressing upon an unbroken or keyed arch, wholly unavailing for the accomplishment of the end in view, and moreover would conduce to adhesive inflammation, and thereby render reduction without an operation impossible. When mild means fail, severe ones must be used; and these to be effectual, must be such as will make a deep impression upon the whole nervous system; as bleeding, emetics and antispasmodics. In one case of obstinate incarcerated hernia, where the mild means by poultice &c., failed alone of success, in addition to them, or in connection with them, I gave the patient, a strong athletic man, a large dose of laudanum, and when this was in full operation, I opened a vein and bled him freely, which, together, gave the motor nerves of the affected part power enough to open the prison door and release the prisoners.

No person troubled with rupture should venture to be about without wearing a suitable and well adjusted truss.

Among the kinds of disorders of the human system, which in practice should come under an *exception* to the general rule of "Let action alone," I would class some of the cases of cold water drinking in extremely hot weather, by old topers,—in which, by the sudden abstraction of heat from the central organs, especially in its disturbing effects on the heart and large arteries, there is danger of congestion of blood, and the consequent rupture of blood vessels. The remedy consists in communicating heat by hot drink, and getting up a general action of the arterial system for a few moments, by stimulation. For the latter purpose, nothing can be better or more appropriate than a smart flagellation with a horse

whip, cowhide, "scourge of small cords" and the like.* It is very possible, and I think highly probable that some good may be done by compelling action in young "teetotalers,"—who have had rum poured into them in sufficient quantity to produce drunkenness,—until they are recovering from the intoxicating effects of the alcohol. It is not in accordance with the general law of the animal economy to "prepare for war in time of peace," and consequently she may be more easily overcome by a first assault than by subsequent ones of the same force, after having been drilled to a preparation by previous defensible attacks.

In the case supposed then, I would recommend that the patient be kept awake and in motion, until there was reason to believe that the alcohol had expended its force, that the different parts of the system to which it might have access, might be better prepared to defend themselves against its action.

In old drinkers, in which the law of accommodation has made all necessary or possible preparation for such abuses, nature may safely be left to herself.†

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*At the close of a lecture, in which I had recommended flagellation as a remedy for the disease under consideration, a lady observed to me that she had once witnessed a very successful application of this remedy. A drinking young man of her neighborhood, went to the well, and drank till he fell senseless by the bucket. His father was sent for, and being near by, came seasonably with a small cord, of which he made a scourge, and soon put the young man on his feet, and kept him moving until danger from his "cold water scrape" was over.

†Of the truth of this position, I was early impressed by the following anecdote of Dr. Fog, an eminent French surgeon, who came to this country during the American Revolution, and settled in Fairfield. Ct.

In the town of ———, a man was found in a senseless state, under circumstances which led to a supposition that he had fallen from a height and broken or dislocated his neck. Dr. —— was called, and many ineffectual attempts were made to get the neck "straightened out" again, so that the main channel might be reopened for the free transmission of the vital forces. While these efforts were in progress, word was brought that Dr. Fog was passing through the place. He was immediately called to the patient, and after a little examination, said, "Footer, footer, Dr. ——, you come to Fairfield, and you can have broken necks to set every day."

Interference will do more harm than good. Old drunkards uniformly testify that they come out of their drunken fits better when left "alone in their glory," than they do when attempts have been made to "help nature" through them.

These cases exhibit a fair specimen of the instances in which a compulsory process can be served upon the vital forces to any real or permanent good—indeed they constitute about the sum and substance of such instances. It is only in an emergency, when all or much is at stake, and everything depends upon carrying a point within a short period, that a resort to such a process is demanded, or can be used to profit.

An enforcement of the law of stimulation is always an exhausting operation. It leaves the parts which have been aroused to an extra effort, weaker than they were before they entered upon the increased action—that is, they have been drained of a portion of their vital funds, over and above what would have been expended by them in the same time under a quiet operation of natural law, and will thereby be the sooner reduced to a state of poverty or entire destitution. It is clear, therefore, that unless an immediate and substantial advantage is to be gained under the pressure of present circumstances, unnatural excitement had better be avoided.

But what solid good can be obtained in any ordinary case of disease, by raising action above the natural level? Suppose action for the time is increased, and there is apparent benefit resulting therefrom, how long can the augmented action continue under the present impulsive influences? Not more than three or four hours at the farthest, and then it will fall as much below par as it has been raised above.

Dr. D., in defending the practice of stimulation, or use of tonic medicine, in cases of extreme debility, admitted that it would not do to put the props, as he termed

them, under at long intervals; but he said that the action when it was once raised should be kept up by moderate and oft repeated doses of stimulants or tonics; that there should be a steady and protracted *stream of excitement*, to secure a permanent benefit. Now where there is a stream of excitement, there will be an accompanying stream of exhaustion. Every particle of stimulus that acts upon excitability will draw off its weight of power, whether it acts alone, or in company with other stimulants.

Oft repeated moderate drafts upon the vital funds, would be less noticed by a looker on, than the same amount drawn for a given time, in much larger drafts at proportionably longer intervals; but the ultimate effect on the general stock would be the same.

If a man takes thirty dollars from his bag at the end of every month, it will make a more palpable show of disturbance in the circulating medium, than if he were to take out a dollar a day regularly, yet at the end of a year the result would be the same in both cases.

The exceptions to the general rule of "no medicine," may be summed up or arranged under the following heads, namely:—

I. The use of excitants in cases of emergency, such as have been noticed above.

II. For the destruction of worms. And,

III. To neutralize or correct poisonous or deleterious substances in the alimentary canal, or procure their evacuation from it.

I. *The use of Excitants in Cases of Emergency.*

No further notice need be taken of medicine that might be called for under this head, for its use for the purposes therein contemplated, should be under the direction of a regular physician.

II. *Worms.*

There are many kinds of animals that infest the human body; but the most common ones may be

grouped in three generic divisions, namely, the tape worm, the long round worm, and the fine short pin worm.

Tape Worm. This will require professional skill to manage, and the best of this is not always equal to the total expulsion and final cure or riddance of every variety of the tape worm.

Long Round Worm. Symptoms.—The most common are, irregular appetite; bad breath; sour or acrid eructations or belchings; occasional pain in the stomach; sense of choking; grinding of the teeth in sleep; paleness of the countenance; peculiar whiteness about the mouth; and picking of the nose.

But these symptoms may all be attendant upon other conditions of the system than those in which worms are present; so that there are no positive indications that these animals are harbored by the child, except occasional demonstration by means of stragglers. Nor is it by any means as common for children to be infested by worms as is generally supposed.

When, from the frequent or occasional escape or expulsion of worms, or from strongly marked symptoms, there is good reason to believe that the patient is troubled with these creatures, an infusion of Carolina Pink, sometimes called Indian Pink, or worm grass, is the best remedy for them. Half a pint of water may be put to two or three common sized roots and steeped to a gill; and this quantity, with a little reinfusion, (to get the whole strength of the roots,) may be given to a child two or three years old, of common size and vigor, at three or four drinks, in the course of as many hours. The tea may be sweetened some, and a little milk added to it, to gratify the sight and taste. The remedy may be repeated again in a few days if thought best. There is no necessity of giving physic after pink.

Small Pin Worm. These inhabit the lower portion of the bowels, and their presence is more readily ascertained than that of any other kind of worms.

Symptoms.—Intolerable itching and distress at the extremity of the bowel; slimy discharges; and presence of worms in the evacuations.

Treatment.—There is no *cure* for them short of an establishment of a sound, healthy state of the bowels, for which attention to diet, exercise and bathing is the remedy. A peculiar depravation of the secretions on the inner surface of the portion of the bowels where they have their lodgment, gives them a title to their home, and while this remains, if they are dislodged repeatedly, fresh crops will be generated, and claim a right of possession.

Injections of water bitters of various kinds may be used as palliatives, when their action can be no longer tolerated, such as a moderate solution of aloes, infusion of wormwood, bark of the white walnut or hickory tree—particularly the tight and smooth barked ones. Sometimes a small injection of molasses and water will act the part of a pacificator for a few hours.

III. *To neutralize or correct poisonous or deleterious substances in the alimentary canal, or procure their ejection from it.*

None but intelligent practitioners should undertake to invert the action of a human stomach, or send active poisons into it to search out and destroy other poisons, and at the same time involve their own destruction in the conflict; so that what I have to say under the present head, may be restricted to a few remarks on the use of mild correctives.

When persons are troubled much with sour or sharp acrid fluids in the stomach, they may use, (within reasonable bounds, or in moderation,) without injury, and to their present relief and comfort, mild alkalies; of which the best are, a solution of soda, (without acid,) lime water, magnesia, and prepared chalk.

But such treatment is at best but palliative. The generation of the corroding, disturbing humors, had

better be prevented by attention to the mode of living, by which the secretions of the stomach may be saved from the painful necessity of manufacturing and pouring into the seat and center of life such vile humors.

By many, great stress is laid upon "cleansing the stomach." And what would they cleanse it with? Tartar emetic, calomel, picra, &c. Wiser far to cleanse a lady's parlor with Ohio mud.

Every organ is furnished with an elegant set of cleansers for its own special benefit, and it is truly astonishing with what promptitude and thoroughness they will do up their work, when they have the requisite power. In thousands of instances I have been called in to set the stomach cleansers right, when, as it was thought, they have deserved a trouncing for neglecting their duty. The stomach would be full to overflowing of hateful, offensive, irritating matter; but upon exercising a little clemency with the operators, it has afforded me much gratification to learn that there was no want of *disposition* to labor, when there was ability to labor with. In a few hours after the stomach had been treated to some little bread pills, or a few drops of aqua fontana pura, the storm would pass over, and leave a mild, serene atmosphere; every thing would move on again "like clock work," in perfect order.*

*A few days after I had attended a woman through one of the most severe turns of "sick head ache," that I ever witnessed, the husband called on me for a particular statement of my prescription, alleging as a reason for the request, that my personal services might not be available in another similar occurrence. (The family had not been long in theplace, and the probability then was, that they would not be long within my visiting distance.) The gentleman told me that his wife had long been subject to such attacks, and never got through with one of them so well before. He said she had sometimes been relieved a little sooner than my medicine relieved her, but never did a turn end so well—leave her general health as good.

The conference had on the occasion, from disclosures made and advice given, resulted in a permanent cure of the head ache.

When my patients or their friends have expressed doubts as to the adequacy of the means that were being employed, they were reminded that,

"Softly knocks,
Split hard blocks."

And they have often thought it was even so.

Physicians have asked me what should be done with the bile, when it was superabundant or vitiated. My answer has been, "'Let it alone; it will do better than your drugs;' as Napoleon said." If the bile is secreted in too large a quantity, and withal is too acrid, it will secure its own expulsion, and no other evacuant will be needed. On the other hand, if the bile is bland, and not sufficiently active to take itself off, it will do no harm; and in either event, when the parts concerned have had sufficient repose, they will wake up and set things right.

In these matters, and many others too, physicians have it in their power to play the charlatan. While passing along one of the out skirts of my professional ride, a man called me in to see a small child of his, that had been quite ill for a day or two with a stomach and bowel affection. I told the parents it needed no medicine, and that with proper care it would soon be well again. Shortly after I had left, another physician called, and gave the parents to understand that the child was in a dangerous condition, and should have immediate aid. He gave it some medicine, and remarked that if his view of the case was correct, the operation of the medicine would produce green, slimy stools. "It turned out just as the doctor said it would," the father told a few days afterwards, with an elevated opinion of the prophet doctor. I told him that if he would give any of his small children, sick or well, calomel enough to act on the bowels, he might venture to predict similar results himself, without any fear of proving to be a false prophet. But I am

happy to believe, and take pleasure in giving this public expression to the sentiment, that there is but a small portion of the regular profession that would descend to such meanness.

In bringing this work to a close, I would say, that the only medicine which families need to keep in their houses, is a little Carolina pink, and that the use of this would be but seldom called for; and further that the number of articles of medicine which the most extensive practitioner could ever use to good account, would make but a meager vocabulary; and that the occasions on which even these could be used to the real benefit of the vital operations, would be few and far between. And in proportion as communities receive and improve physiological light, the number of cases calling for either medicine or physicians will diminish.

Dr. S., of H., Mass., with whom I enjoyed a short but pleasant acquaintance, some six years ago, remarked to me, that "when people learned and practiced the art of living right, physicians might soon go to their farms and workshops."

THE END.

ERRATA.

Page 69, end of second line from top, for *respirative* read *recuperative*.
do 74, fifteenth line from bottom, for *operations*, read *operatives*.
do 75, end of third line from bottom, for *continued* read *combined*.
do 77, sixth line from bottom, for *are* read *were*.
do 78, ninth line from top, for *alone* read *above*.
do 78, twentieth line from top, for *interception* read *interruption*.
do 79, fifth line from top, for *arive* read *arise*.
do 80, eighth line from bottom, for *and true* read *and the true*.
do 80, eleventh line from bottom for *contractive* read *contractile*.
do 82, fifth line from bottom, for *loose* read *lower*.
do 82, ninth line from bottom, for *action* read *effects*.
do 82, eleventh line from top, at the end make a period.
do 85, end of eighteenth, for *formation* read *formative*, and put a comma, between analytical and formative.
do 86, fourth line from top, for *some* read *sound*.
do 86, fifteenth line from top, for *expectorate* read *expectoration*.
do 86, sixteenth line from top, for *purcelent* read *purulent*.
do 237, add at bottom, "and then allow nature to work on as usual, was the"

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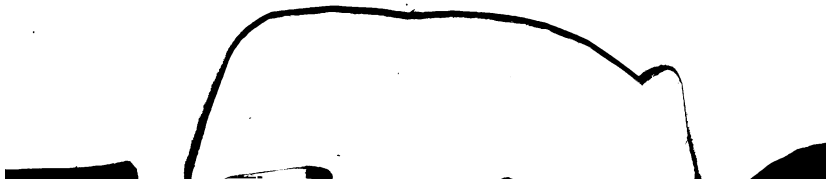

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